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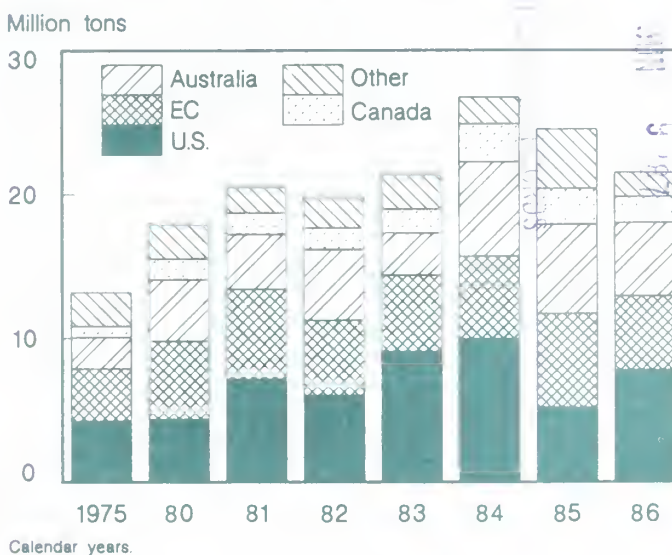
Economic  
Research  
Service

RS-87-1  
April 1987

# Middle East and North Africa

## Situation and Outlook Report

Wheat Exports to Region by Supplier



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Approved by the World Agricultural Outlook Board. Summary released April 14, 1987. The *Middle East and North Africa Situation and Outlook Report* is one of 10 regional reports. Other Titles in the series: Western Europe, USSR, China, South Asia, Southeast Asia, Western Hemisphere, Eastern Europe, East Asia, and Sub-Saharan Africa. Annual subscriptions and single copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. For ordering and pricing information, call the GPO order desk at (202) 783-3238.

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## SUMMARY

*Plunging oil prices sharply lowered export earnings* in the OPEC countries of the Middle East and North Africa, affecting not only their economies but also those of neighboring countries dependent on the demand and funds created by oil revenues. Their total export revenues sank by one-third to an estimated \$69 billion, about one-fourth of 1980 earnings. Iran's revenues declined nearly 50 percent, while Saudi Arabia's were 25 percent lower. At the same time, total imports stagnated at \$79 billion, down 4 percent from last year, resulting in a \$10-billion trade deficit. In 1980, these OPEC countries had a \$134-billion trade surplus.

*The region's agricultural imports declined* 7 percent to \$27 billion in 1986. While U.S. and EC exports rose—increasing their market share to 34 percent—other suppliers, particularly Brazil and Australia, suffered large export declines. The lower value of imports also reflected sharply lower world commodity prices. Improved weather in the region contributed to larger grain harvests; yet, grain imports increased by 3 percent, following a 10-percent decline in 1985. While wheat and flour imports declined 5 percent, feed grain imports rose sharply, particularly barley to Saudi Arabia, whose total grain imports approached 8 million tons, the second largest regional grain market after Egypt. Grain imports also rose in Algeria and Tunisia, while those of Morocco, Syria, and Turkey declined significantly due to production gains. Iran's food imports dropped sharply, resulting in a shortage of livestock products.

*U.S. agricultural exports* to the region in 1986 rose by 6 percent to \$2.7 billion, despite a 9-percent decline to Egypt. Exports to Morocco rose 71 percent and to Tunisia 135 percent. Sales to Turkey doubled to \$121 million, and those to Saudi Arabia and Iraq rose slightly. The value of wheat and flour sales rose 42 percent, exceeding \$1 billion.

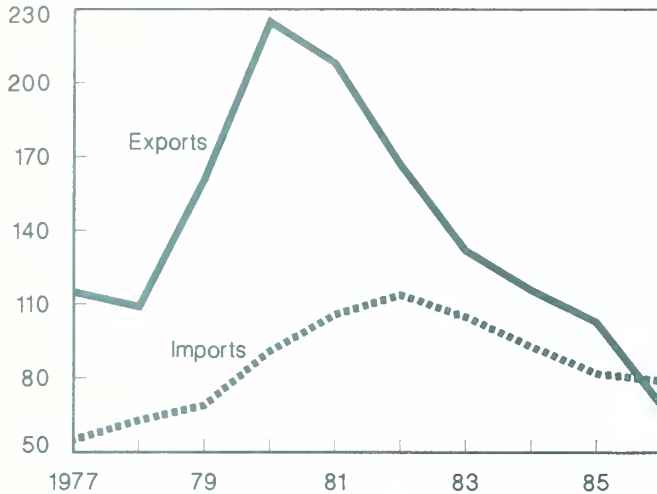
The Export Enhancement Program (EEP) is pivotal in maintaining the U.S. market share, and was particularly effective in barley sales to Saudi Arabia and wheat sales to North Africa. U.S. exports of oilseeds and products rose sharply due to a shortage in Brazil, but U.S. exports of animals and animal products dropped by 39 percent to \$173 million, due mostly to lower sales of tallow, cheese, and butter to Egypt.

*Prospects for U.S. trade* depend upon the extent of available credit. The EEP and GSM credit programs will continue until at least 1988. The combination of greater credit, incentive programs, lower U.S. prices, and low stocks of essential commodities in Egypt, Iraq, and several other countries should contribute to further gains in U.S. agricultural exports to the region, especially of livestock and poultry products. In addition, weather-related shortages of exportable grain and frozen poultry in South America, Spain, and Eastern Europe should enhance U.S. export prospects.

*The region's agricultural outlook* in 1987 is mixed. Plentiful rains this winter in the Middle East, particularly in Iran, Jordan, Syria, and Israel, will improve grain yields. A relatively dry winter in Turkey will reduce total grain output. In North Africa, favorable weather has improved the outlook for grain output in Tunisia and Algeria. The region is likely to continue to account for one-fourth of the world's wheat imports, and demand for livestock products is expected to continue to grow in response to wider income distribution, subsidized prices, improved marketing, and rising population. The region will encourage diversification of agricultural output by increasing fruit and vegetable production. Despite lower oil revenues, subsidies for essential foods remain intact and are unlikely to change in the near future. Therefore, agricultural imports should stabilize at recent levels, and EC-U.S. competition will remain keen.

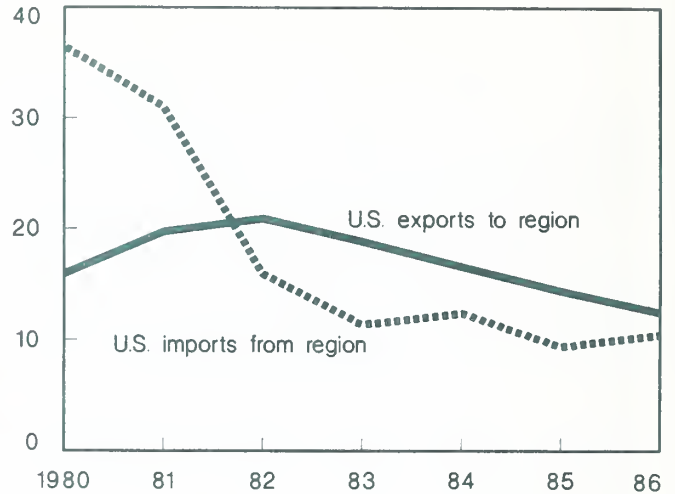
## Middle East/North Africa OPEC Trade Balance

Billion dollars



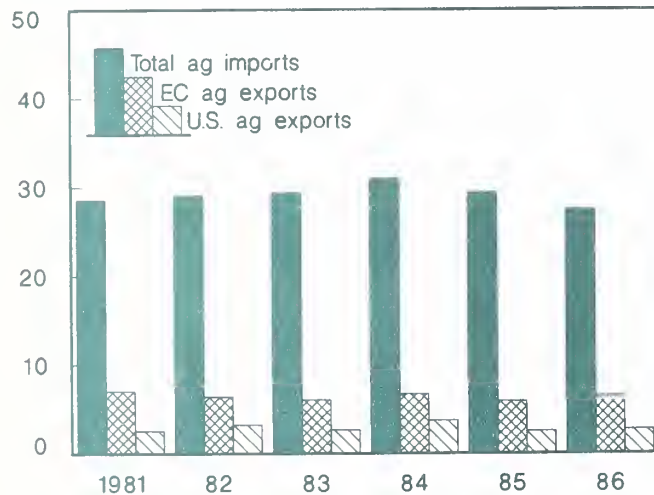
## Total U.S. Trade with the Region

Billion dollars



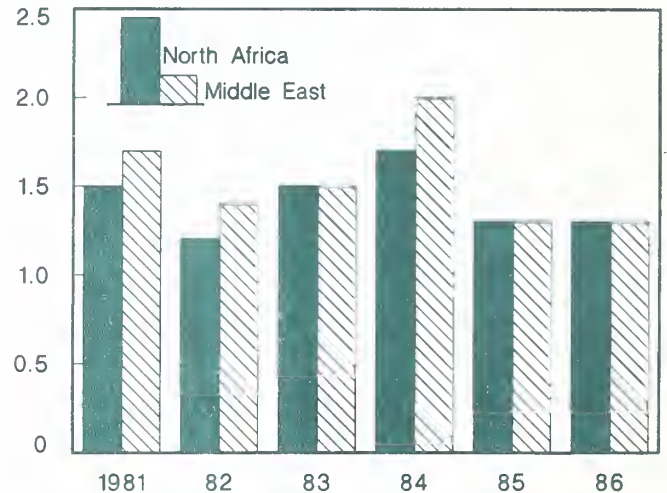
## Region's Total Agricultural Imports, and U.S. and EC Exports to Region

Billion dollars



## U.S. Agricultural Exports

Billion dollars



## THE MIDDLE EAST

### IRAN

#### *War Continues to Exact Toll*

The continuing war with Iraq has caused problems for Iran in addition to human losses and heavy expenditures. Food shortages and dwindling foreign exchange have now become major political issues. Disruptions in the economy have been apparent since the early 1980's when most large private businesses

closed, creating massive unemployment. Moreover, industries that once relied on U.S. and European technicians closed or reduced operations during 1980-85. However, since March 1985, Iran has been trying to diversify its industry, agriculture, trade, and sources of technology, with some success. Increased demand for war-related goods has also forced many factories to reopen under public management, thus creating more jobs. Factories once closed for lack of foreign skilled labor are also reopening, often with technicians from friendly developing countries.

## *Currency Continues to Depreciate*

Even if the political climate was friendlier, few Americans, Europeans, or Japanese would contract in Iran because of the disastrous erosion in the value of the Iranian rial, which slipped from 70 to the dollar in 1981 to the current rate of about 700 to the dollar. This has also contributed to inflation estimated at more than 25 percent and has crippled the once flourishing transit trade from Dubai. Most imports are now handled by public trading agencies, and marketing of basic foods also involves government agencies.

Iran's petroleum earnings dropped to only \$6.5 billion in 1986. As a result, the Government has sought other sources of foreign exchange, opening negotiations with countries previously snubbed. France released \$1 billion in Iranian assets, but negotiations to retrieve \$500 million from U.S. banks are continuing. The value of Iran's total imports was only about half normal levels, declining from \$12 billion in 1985 to an estimated \$11 billion in 1986 (including \$4 billion through credit or trade agreements for future oil deliveries). Iran also has sought to increase exports of petrochemicals, fertilizers, and agricultural commodities.

## *Agricultural Production Up Moderately*

Favorable weather and greater use of improved seed and farming methods contributed to an estimated 8-percent increase in agricultural production. Because official data are often inflated, various sources are used to estimate production. USDA data indicate that per capita food production lagged 13 percent behind the 1976-78 average.

Wheat production, estimated at 5.9 million tons in 1986, rose 11 percent over 1985. Consumption remained at about 8 million tons, and imports reflected fluctuations in production, with 1984 imports exceeding those of 1986 by more than 1 million tons. Barley output was estimated up 10 percent at 1.8 million tons. Yet, Iran continues to import barley to meet rising feedlot demand. Difficulty in importing barley on time has caused the open market price for barley to rise sharply.

Plans to greatly increase rice production and reduce imports have failed. Farmers find it more lucrative and easier to grow vegetables on land where rice cultivation might be feasible. As a result, rice output declined about 3 percent to 1.4 million tons of paddy in 1986.

The most successful part of Iranian agriculture has been horticulture, which benefitted from extensive investments during the 1970's. Rising prices and policy proclamations have encouraged better care of orchards, regardless of their ownership. Apple and pistachio orchards are thriving. Iran now produces about 1 million tons of apples and has banned imports, which had reached 35,000 tons annually in the late 1970's. Pistachio output had fluctuated widely in the 1970's. As new varieties bore fruit, production stabilized somewhat. U.S. and Spanish trade associations closely monitoring Iran's pistachio supply have indicated that production increased from 18,000 tons in 1982 to 83,000 tons in 1986. About half of the 1981-85 harvest was exported. Disposal of the 1986 harvest remains uncertain because of high U.S. tariffs and a much larger crop in California.

## *Output of Livestock Products Rebounding*

The great weakness in Iran's agriculture lies in the livestock sector. In 1986, meat output was estimated at 715,000 tons, up 7.8 percent from 1985 but still below 1978's 738,000 tons. This included more than 220,000 tons of poultry meat and 300,000 tons of beef. Egg output is still below the 1978 peak of 244,000 tons, and persistent shortages have caused rationing in the cities.

## *Agricultural Imports Lower*

In 1986, agricultural imports declined a fifth from 1985 to about \$2.5 billion, and nearly a third below the \$3.6 billion recorded for 1984, when grain imports peaked at 6 million tons. In 1985, wheat imports declined 29 percent to about 2.7 million tons and fell to an estimated 2.4 million in 1986. Corn imports remained steady, while barley imports declined. Imports of meat and dairy products were down sharply in the last 2 years because of the foreign exchange shortage.

## Boycott Of U.S. Food Continues

Over the last 5 years U.S. sales of agricultural products to Iran totaled less than \$2 million, and in 1986 the value was only \$19,000. Without the political barriers, Iran would now be a \$500-million market for U.S. farm products even considering Iran's fiscal austerity, particularly for commodities that dominated trade a decade ago--white wheat, rice, and vegetable oils.

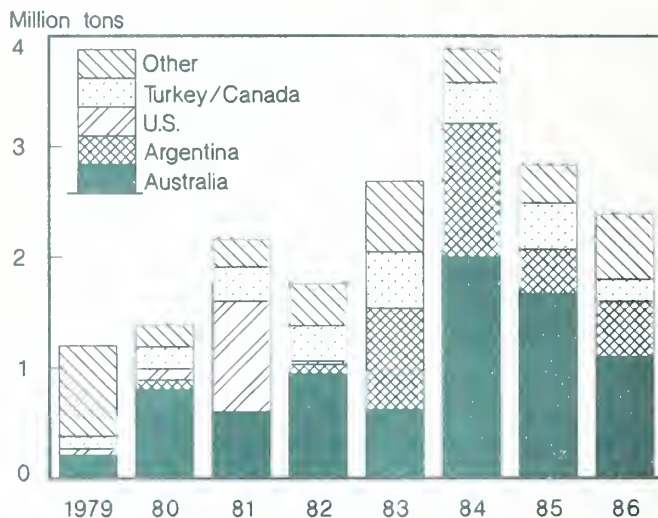
Iran's efforts to sell more petroleum and food to the United States has continued, often with remarkable success. During 1983-85, the United States purchased more than half of Iran's pistachio exports, but the new 249-percent, ad valorem, countervailing duty will limit Iran's sales this year. U.S. agricultural imports declined from \$59 million in 1985 to only \$23 million in 1986 as purchases of pistachios dwindled to only a third the \$35 million of 1985.

### Canada and the EC Lose Market Share

At various times in the early 1980's U.S. wheat and corn moved to Iran through Canada, but in the last 2 years Canada also lost this market because of relatively high prices. Canada's agricultural exports to Iran declined from a peak of \$124 million in 1983 to \$19 million in 1984 and only \$4 million in 1985. Wheat shipments dwindled from 415,000 tons in 1983 to only 26,000 tons in 1985, with the value falling from \$62 million to \$3 million.

European Community (EC) food sales are hampered by Iran's foreign exchange shortage and political considerations. Iran uses most of the cash earned from petroleum sales to the EC for items other than food. As a result, EC agricultural exports to Iran tumbled from \$973 million in 1981 to only \$349 million in 1985. The EC's exports of butter plunged from 60,790 tons in 1981 to only 8,640 tons in 1985. Cheese shipments peaked at 121,448 tons but declined a third in 1985. Iranian planners thought that gains in local milk output would offset imports of dairy products. However, most local milk is not used for butter or cheese because of rising fresh milk prices.

## Iran's Wheat and Flour Imports by Supplier



### Southern Hemisphere and Asian Suppliers Gain Importance

As Iran quit buying U.S. food and reduced purchases from the EC, sales from Southern Hemisphere and Asian countries increased. Argentina stands out, with exports increasing from only \$27 million in 1982 to an average \$400 million annually during 1984-86. In 1984, Argentina shipped a record 1.2-million tons of wheat to Iran, which purchased about half that volume in each of the following 2 years. Corn deliveries averaged 800,000 tons annually during 1984-86.

Australian farm shipments to Iran peaked at \$337 million in 1984, including 2 million tons of wheat at \$292 million. Barley, butter, and mutton accounted for the remainder. New Zealand dominated the mutton market, with deliveries averaging 155,000 tons annually during 1984-86. Its food shipments have shown less value fluctuation than those of other suppliers because of Iran's meat shortages and the lack of political confrontation between the two countries. New Zealand also sends wool, corn, and beef.

Brazilian food exports to Iran declined from \$167 million in 1982 to an average \$150 million during 1980-86. Iran's purchases of Brazilian soybean oil, soybean meal, and other commodities continue, although imports of frozen poultry and beef recently ended because of the Brazilian drought and inflation.

Turkey's agricultural exports to Iran increased from only \$85 million in 1981 to \$394 million in 1983, but fell below \$200 million annually during 1984-86. During 1981-83, Turkey had an abundance of cereals, pulses, livestock products, fresh vegetables, and fruit, and the advantage of quick land delivery.

#### *Outlook Favorable for 1987 Crops*

Heavy rains in much of Iran during the recent winter should contribute to good wheat and barley yields in 1987. However, output of livestock products will not be much greater than a decade ago when there were 10 million fewer people. Consequently, food shortages will persist, particularly for livestock products. In 1987, Iran's wheat imports are expected to exceed 2.2 million tons, including about 1 million tons from Australia and 500,000 tons from Argentina. Imports of Argentine corn should again exceed 800,000 tons. If European suppliers provide credit or offer to exchange livestock products for petroleum, a rebound in purchases of dairy products, beef, and eggs may occur. Iran recently concluded an agreement to buy 800,000 tons of rice from Thailand over the next 2 years to ease the serious rice shortage. [John B. Parker, 202-786-1680]

## IRAQ

### *War Expenditures Remain High*

Foreign exchange shortages became more acute in 1986 as the war's cost rose and petroleum revenues dropped precipitously. However, the rebound in crude oil prices in early 1987 and plans to possibly double exports later this year have improved Iraq's sagging credit rating, and have encouraged Iraqi officials to reschedule delinquent loans, thereby calming some European creditors' fears of defaults.

In 1987, petroleum revenues—which plummeted to an estimated \$7 billion in 1986—should rebound to \$13 billion and will have a major impact on Iraq's economy. It should be noted that next to Saudi Arabia, Iraq has the largest petroleum reserves in OPEC. When the war began Iraq had \$35 billion in cash reserves, thus financing imports was not difficult. Currently, its foreign debt is

estimated at more than \$50 billion, including \$11 billion owed to European and American bankers. Iraq has \$2 billion in foreign exchange reserves, which are vital to keep supplies for the war flowing.

Iraq's Gross Domestic Product (GDP) declined from \$32 billion in 1980 to less than \$30 billion annually during 1984-86. Gains from manufacturing, construction, and agriculture could not offset declining petroleum revenues. However, Iraq is taking steps to improve its credit rating by increasing petroleum exports. By July, the pipeline to Yanbu, Saudi Arabia, should handle 1.4 million barrels per day and, combined with the pipeline through Turkey, should bolster crude oil exports to 2 million per day. Iraq wants to sharply increase petroleum sales regardless of price, whereas OPEC's price hawks want to curtail petroleum exports in order to boost the price.

The Government's domination of major sectors of the economy and severe restrictions on foreign travel and private investments have limited expansion of private enterprise. Public sector companies handle more than 95 percent of the country's imports and manage more than 80 percent of manufacturing. The Grain Board, State Enterprise for Vegetable Oils, State Enterprise for Animal Feed, and other public sector companies handle most food imports.

### *Agricultural Output Rises*

In 1986, aggregate agricultural output increased 6.5 percent, mostly because of the 9.2-percent rise in meat and milk production. Crop production was up only 2.3 percent, following the sensational rebound for cereals in 1985 from the 1984 drought. Crop production declined 14 percent in 1984 and rose 57 percent in 1985.

Government farm price policies and emphasis on state farms changed dramatically in the last 3 years. Producer prices increased for cereals, livestock products, and horticultural items, and previous price ceilings were lifted for produce sold in farmers' markets. Producer credit became easier to obtain, and terms were generous. The greater availability of tractors and flexibility in leasing public land contributed to the rebound for wheat and barley output.

Recent gains in grain production were directly related to policy changes and procurement prices of more than \$400 per ton—at official exchange rates—offered for wheat and barley. Because of the excellent response to these high prices, policy changes, and favorable weather, wheat output tripled in 1985, reaching 1.4 million tons, although output declined nearly a fourth in 1986 due to poor weather.

Barley production more than doubled in 1985 to 1.3 million tons, and was about the same in 1986. Barley was promoted because of programs encouraging greater meat and milk output and because barley's price on the world market is nearly as costly as transporting feed to northern Iraq.

Production of fruits and vegetables increased markedly in the last 2 years because of free seeds, fertilizer subsidies, improved availability of essential farm implements, and marketing assistance. These actions were prompted by increased urban demand, shortages of fresh produce once imported from Turkey and Europe, and deregulation of marketing. Tomato production increased a fourth to an estimated 880,000 tons in 1986, and watermelon output rose a fifth to 895,000 tons. Dry onion output was estimated at 190,000 tons, double the 1984 volume, partly because of contracts to use foreign technicians and workers.

Although Iraq is a leading date producer, deciduous fruit output has become greater, even though date production increased 20 percent to 396,000 tons in 1986. Iraq's date exports declined sharply because of increased labor costs and transportation difficulties related to the war, a problem likely to affect the 1987 crop. Programs to plant new commercial orchards in northern Iraq over the last decade are bearing fruit with larger harvests of apples, pears, peaches, and apricots in 1985 and 1986 when imports of these commodities were inadequate.

#### *Shortage of Livestock Products Persists*

The pace of development slowed in 1986 as the growth rate for meat and milk output fell from 18 percent in 1985 to 9 percent in 1986, a decline largely attributed to lower feed grain imports. Milk output rose 7.5

percent to 1.7 million tons. Beef output remained at 45,000 tons, while mutton production rose 4 percent.

Programs encouraging broiler enterprises saw poultry meat output rise 23 percent to 270,000 tons. In 1986, frozen poultry imports from Brazil declined to less than a third the 65,000 tons received in 1985, spurring efforts to further boost domestic output, but shortages of imported corn limited gains.

#### *Value of Agricultural Imports Declines*

In 1986, lower world prices and unchanging volume caused the value of Iraq's

Iraq's agricultural imports by quantity and value, 1984-1986

| Commodity       | 1984       | 1985  | 1986  | 1984       | 1985  | 1986  |
|-----------------|------------|-------|-------|------------|-------|-------|
|                 | 1,000 tons |       |       | \$ Million |       |       |
| Wheat           | 2,875      | 2,096 | 2,185 | 518        | 309   | 297   |
| Wheat flour     | 300        | 270   | 367   | 78         | 53    | 73    |
| Rice            | 510        | 550   | 525   | 256        | 281   | 278   |
| Barley          | 541        | 130   | 20    | 86         | 18    | 4     |
| Corn            | 352        | 245   | 330   | 59         | 63    | 46    |
| Soybean meal    | 240        | 155   | 170   | 51         | 38    | 39    |
| Beef            | 98         | 109   | 115   | 178        | 203   | 210   |
| Mutton          | 52         | 57    | 58    | 60         | 72    | 71    |
| Frozen poultry  | 107        | 73    | 58    | 110        | 82    | 77    |
| Offals, edible  | 4          | 5     | 5     | 8          | 9     | 9     |
| Canned meat     | 20         | 29    | 35    | 40         | 57    | 68    |
| Milk, dry       | 55         | 53    | 59    | 115        | 117   | 120   |
| Milk, condensed | 7          | 8     | 4     | 10         | 11    | 10    |
| Butter          | 9          | 12    | 12    | 23         | 22    | 21    |
| Cheese          | 31         | 37    | 38    | 59         | 62    | 61    |
| Eggs            | 68         | 54    | 47    | 84         | 94    | 89    |
| Potatoes        | 48         | 63    | 54    | 12         | 15    | 13    |
| Tomatoes, fresh | 44         | 46    | 39    | 7          | 6     | 7     |
| Onions          | 30         | 19    | 18    | 6          | 6     | 6     |
| Pulses          | 84         | 73    | 85    | 45         | 43    | 41    |
| Oranges         | 40         | 30    | 23    | 19         | 15    | 12    |
| Lemons          | 4          | 8     | 6     | 5          | 4     | 4     |
| Bananas         | 13         | 18    | 13    | 4          | 2     | 2     |
| Apples          | 51         | 32    | 24    | 30         | 15    | 12    |
| Grapes          | 5          | 5     | 5     | 2          | 2     | 2     |
| Raisins         | 8          | 8     | 7     | 6          | 6     | 5     |
| Pears           | 6          | 4     | 3     | 2          | 2     | 2     |
| Margarine       | 14         | 15    | 31    | 17         | 16    | 29    |
| Palm oil        | 193        | 197   | 196   | 145        | 144   | 140   |
| Sunflower oil   | 22         | 35    | 62    | 17         | 20    | 35    |
| Tallow          | 12         | 19    | 23    | 6          | 10    | 11    |
| Sugar           | 555        | 580   | 591   | 178        | 181   | 212   |
| Canned fruit    | 26         | 28    | 29    | 34         | 31    | 33    |
| Tea             | 36         | 38    | 43    | 118        | 136   | 99    |
| Chocolate       | 1          | 1     | 1     | 4          | 4     | 3     |
| Tree nuts       | 15         | 10    | 11    | 20         | 14    | 13    |
| Tobacco         | 7          | 8     | 7     | 33         | 45    | 38    |
| Peanuts         | 2          | 2     | 1     | 3          | 2     | 2     |
| Cotton          | 23         | 21    | 24    | 42         | 39    | 32    |
| Cattle (thous.) | 6          | 7     | 5     | 6          | 6     | 4     |
| Sheep (thous.)  | 420        | 270   | 200   | 30         | 15    | 12    |
| Other           | NA         | NA    | NA    | 559        | 588   | 470   |
| Total           | NA         | NA    | NA    | 3,085      | 2,858 | 2,712 |

NA = Not applicable.

SOURCES: 1984 FAO Trade Yearbook and ERS estimates from matrix tables.

agricultural imports to decline 10 percent to an estimated \$2.7 billion. While grain import volumes showed little change, suppliers shifted. Foreign exchange shortages caused more of Iraq's food imports to move under countertrade or concessional financing.

Wheat imports remained at 2.1 million tons. Imports from Australia declined 30 percent to 1 million tons, while those from the United States rose a third to 711,000 tons. Purchases from Turkey and Canada declined. Wheat flour imports increased because 104,555 tons from the United States, a new supplier, offset smaller deliveries by Turkey and Kuwait. Greece again sent more than 100,000 tons.

With excellent domestic output, barley imports declined to token levels, following the 80-percent drop to 130,000 tons in 1985, when the United States and Turkey were major suppliers. Purchases of U.S. corn through GSM 102 increased a third to 323,000 tons. Stocks of rice had increased from the large 1985 imports, and purchases from the United States declined 8 percent to 373,000 tons in 1986.

Meat shortages persist. Much beef and canned meat are sold directly from trucks, leaving grocery store shelves perpetually bare. Frozen poultry imports declined to 15 percent below the 75,000 tons received in 1985, because of smaller deliveries by Brazil. Imports of dairy products increased with concessional sales from the EC, the United States, and other suppliers. U.S. exports of

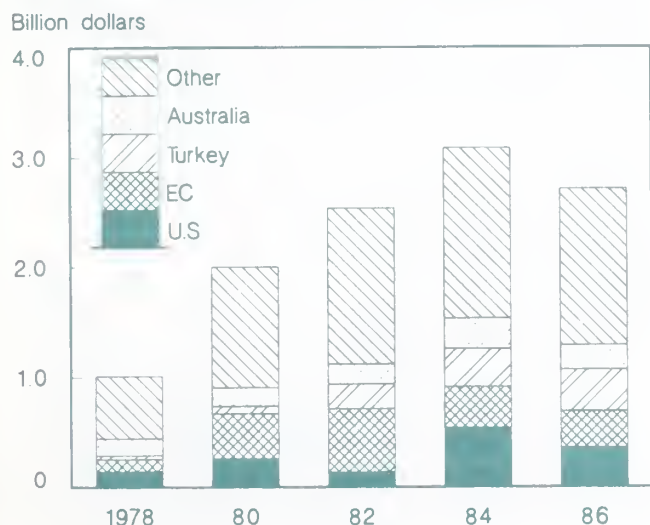
nonfat dry milk (NFDM) doubled to 6,066 tons, still only one-fifth of EC deliveries. U.S. butter exports remained at 868 tons, while purchases from the EC and New Zealand combined exceeded 10,000 tons. Cheese exports increased slightly to 38,000 tons as the EC, New Zealand, and Australia continued to provide favorable prices.

### *U.S. Agricultural Exports to Iraq Rebounding*

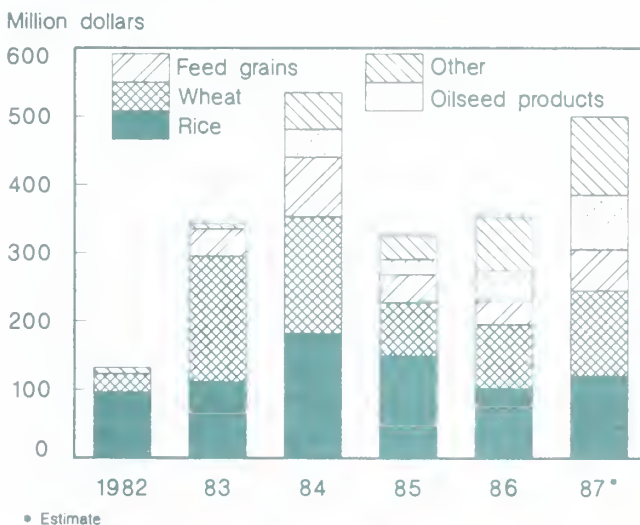
In 1986, Iraq's more prompt use of GSM 102 credit caused U.S. agricultural exports to rise \$354 million, following the 28-percent decline in 1985. Commodity composition is being diversified, and the share of cereals is declining. The rebound was led by the 60-percent rise for soybean meal value to \$27.5 million, a 125-percent hike for sunflower oil to \$10.6 million, and the ninefold rise for sugar to \$15 million. New commodities included \$16 million for wheat flour, \$8 million for pulses, and \$8 million for cotton.

U.S. sales in 1987 could surpass the 1984 peak of \$535 million. Iraq has \$562 million available for GSM 102 financing this year. The extent of the gain will depend on how promptly EEP credit is used. Also, problems in obtaining traditional food items through countertrade from Turkey and Brazil should contribute to the U.S. upsurge. If most credit is used, U.S. wheat exports should rise about 12 percent to 800,000 tons, and flour sales should rise to 175,000 tons.

### **Iraq's Agricultural Imports by Supplier**



### **U.S. Agricultural Exports to Iraq**



The EEP credit for 60,000 tons of frozen poultry has already been used. Credit is also available for (in millions of dollars): rice, 100; corn, 78; protein meals, 61; sugar, 35; vegetable oils, 24; wood products, 22; cotton, 18.5; protein concentrates, 15; soft drink concentrate, 13; pulses, 12; hides and skins, 10; planting seeds, 12; tallow, 9; oilseeds, 5; and wool, 2.5. [John B. Parker 202-786-1680]

## ISRAEL

### *Drought Broken After 3 Years*

Heavy rains in November 1986, finally broke a 3-year drought that reduced Israel's water table significantly, lowered water allocations for agriculture, and reemphasized the tenuous water situation there. Israel's economy improved 2.7 percent in real terms, and skyrocketing inflation began to ease in mid-1985, rising only 20 percent in 1986. The economy saved \$600 million because of the oil price slump. However, the trade gap widened by \$620 million over last year, totaling \$2.8 billion.

Israel has made great strides toward economic recovery in the past year, but continued progress will hinge on the Government's willingness to further reduce spending and the national deficit. Israel's long-term economic outlook depends on the economy's ability to sustain meaningful growth while fundamental changes in the economic system are implemented.

With agricultural production no longer growing, there has been a steady shift towards more exports. Exports of agricultural supplies and equipment are already running well ahead of produce sales.

### *Overall Output Lower*

Israel's agricultural output declined in 1986 because of drought, dipping below the average for 1976-78 base years for the first time. Following a record 335,000-ton wheat harvest in 1983, production dropped in 1986 to less than one-third that level. Cotton output declined precipitously in response to lower world prices and water shortages. In addition, the trend of sharply declining income from cotton, which began in 1983/84, continued for the third year. Increased yields in 1985/86

dampened the decline somewhat, but the effect of slumping world market prices could no longer be cushioned by increasing returns from the sale of cottonseed, which was marketed exclusively in Israel. The drop in local consumption in 1984/85 continued, and textile exports were sluggish. Whether Israel—a high-cost producer—will be able to benefit from the expected upturn in worldwide prices remains to be seen.

The 1986 cotton lint output declined 30 percent, as prices dropped 31 percent in real terms. The percentage of cotton in the value of agricultural production declined from 6.2 to 3.3 percent, lower than the flower sector for the first time.

Encouraged by rising world cotton prices and above-average rainfall, Israel's cotton producers plan to increase acreage by 10 percent to 50,000 hectares for the 1987 crop. The breakeven point of 75 cents per pound has been reached. However, this price is likely for only the most efficient producers. Therefore, it is questionable whether expansion of cotton output is warranted.

### *Citrus Output Declines*

For the 1985/86 citrus season, production of practically all citrus varieties declined. Only tangerine output—which is approaching full production—increased. No specific reasons can be cited for the sharp drop, but yield fluctuations were related to the usual biannual production cycle, combined with the exceptionally heavy preceding crop. Exports declined at a somewhat lower rate than production and, while data are unavailable, it is believed there were no major marketing changes. Returns did increase, as European currencies strengthened against the U.S. dollar, to which the new Shekel is linked. However, returns to producers are probably not as high as in the last good year. For the 1986/87 season just ending, the crop was estimated larger than the previous one, and the percentage destined for export is also larger.

### *Livestock Output Declines*

Beef production increased in 1985 as the Government's pricing policies discouraged the use of imported frozen beef. However, total beef consumption declined. Larger numbers of

young animals were slaughtered while the number of milk cows increased. Sheep and goat herds suffered from the third year of drought, and animal numbers continued to decline. Broiler production fell as subsidies were reduced in mid-1985. There is a considerable surplus productive capacity for broilers, turkeys, and eggs. Production is limited by a quota system.

Exports of poultry and turkey parts declined and became of marginal importance only to the poultry economy. A surplus of table eggs materialized once again, due mainly to political considerations. Egg consumption declined during late 1985, continuing to drop in 1986.

### *Cross-Commodity Developments*

Declining beef consumption did not result in higher poultry demand, as various poultry meat products also increased in price with the cut in subsidies effective mid-1985. Egg sales increased marginally, but per capita consumption remained near 1984 levels. Both 1985's restrictive anti-inflationary policies and the pricing policy adopted under pressure from local meat producers resulted in lower nutritional standards, for which beef producers marginally gained.

### *Dairy Sector Profits Improve*

As feed prices decreased in 1986, in line with world prices, dairy's profitability improved. The trend toward fewer but larger herds continues. Dairy cows are still concentrated in medium-sized herds of 60 to 120 head in the family farm sector, where several farming units usually operate a single dairy. However, the small family dairy herd of 10 or fewer animals is disappearing. Israel's dairy herd is based entirely on barn feeding.

### *Financial Position Still Shaky*

While export returns on citrus, flowers, avocados, and other export commodities were good this past year, the fundamental financial problems plaguing the agricultural sector continue. There is an extraordinary debt burden on the cooperative sector reflecting the unfavorable economies of scale of the smaller producers and the water use problem. In response, producers are shifting to

commodities facing minimal worldwide competition. The total debt of the agricultural sector is estimated at \$900 million, nearly one-third of the added value of this sector.

Since Israel's semiarid climate has assigned water a major role in intensive agricultural production, it is water that determines how much land is used for this purpose. The water constraint made capital intensive agricultural production unavoidable, and sizable investments were funneled into advanced technologies. The rapid growth in Israel's agricultural productivity is also attributable to increases in yields, a combination of technological progress and research achievements, and the Israeli farmers' ability to apply them. For example, yield gains between 1966-1983 showed tomato up 82 percent, potatoes 63, grapefruit 51, apples 94, cotton 19, wheat 57, and roses, 31 percent. Concurrently, yield increases of equal magnitude were noted in the livestock sector, with milk up 44 percent, table eggs per layer up 48, and broiler output per chick up 93 percent.

### *Value of U.S. Trade Declines*

U.S. agricultural exports to Israel declined by 8 percent to \$255 million last year. Grains and oilseeds dominated the market and, while overall volumes increased, lower prices reduced the value. For example, the volume of wheat rose by 19 percent but the value only 3 percent; the volume of sorghum dropped 20 percent, while the value was 34 percent lower. Rice made a surprisingly strong showing in response to lower U.S. prices. U.S. soybean exports continue to hover near 400,000 tons annually. Cotton exports, which saw a meteoric rise to \$10.6 million in 1985, witnessed an equally sharp decline to only \$1 million last year.

Israel qualified for the EEP in 1986, and 200,000 tons of barley were offered under this program. By year's end, 36,000 tons had been shipped. In the past, Israel's barley has emanated from the EC or Canada (often a conduit for U.S. barley).

The 1987 season began early with very heavy countrywide rains in October. By February, rainfall had already exceeded the yearly average. As a result, a wheat crop

surpassing 250,000 tons is forecast, which should lower U.S. wheat exports to Israel. Cotton output should also rise as world prices increase and area expands. Agriculture's fundamental financial malaise continues to confront the Government. A tussle is developing over the proposed \$500-million package of debt rescheduling and other credits for the moshav movement, a sum that could unhinge the State budget. [Michael E. Kurtzig, 202-786-1680]

## JORDAN

### *Economic Problems Persist*

In 1986, Jordan's economy grew at 2.6 percent in real terms, from .5 percent in 1985. Inflation declined from 3 to 2 percent. Jordan's economy depends largely on export earnings and remittances from Jordanians working in the oil-producing Arab countries, both of which declined in 1986. While foreign exchange reserves rose slightly to \$412 million from last year, they declined by one-fourth in January 1987.

Jordan faces serious economic problems, including sharply lower foreign exchange reserves, growing budget deficits, an accumulation of Iraqi debt, declining export earnings, and increasing unemployment. To remedy this situation, the Government restricted imports to conserve foreign exchange and to compensate for declining revenue sources. In early 1987, measures were introduced to further reduce Government expenditures and increase revenues.

Oil drilling is progressing with encouraging signs. In March 1986, Jordan signed a \$120-million contract with AMOCO for oil exploration, but the existence of oil has not yet been confirmed.

### *Drought Reduces Output*

Jordan's rainfall in 1986 was below average, and drought affected cereals, vegetables, legumes, and rangeland. Wheat production was 35,000 tons (East Bank), down 55 percent, and barley was 16,000 tons compared to 19,700 tons in 1985. Rangeland was severely affected, forcing many livestock owners, especially of sheep and goats, to

slaughter the animals or to purchase supplemental feeding. In addition, the water level in dams supplying irrigated areas in the Jordan Valley became critical and forced the Jordan Valley Authority to ration water, giving priority to permanent crops.

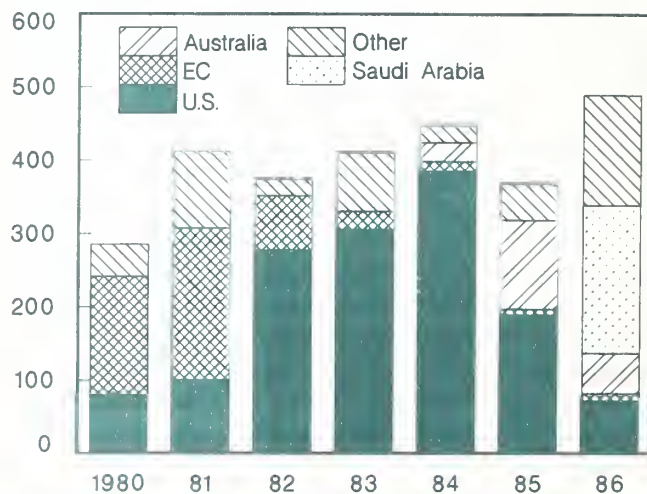
### *U.S. Wheat Exports Lower But Rice Grows*

Wheat is Jordan's staple food and the most important commodity imported. Annual wheat imports are estimated at 450,000 tons. U.S. exports dropped from 184,589 tons of wheat and 3,885 of flour in 1985 to 72,712 tons and only 155 tons, respectively, in 1986. The decline was due mainly to lower priced imports from other suppliers, including 202,000 tons from Saudi Arabia, 100,000 from Syria, 55,000 from Australia, and 50,000 from India.

Jordan does not produce rice. In 1985, imports totaled 75,000 tons, with the EC supplying 45,836 tons, Thailand 23,000, Egypt 4,200, and the United States 1,220 tons. In 1986, however, U.S. exports of 54,632 tons ranked first because of the EEP, GSM 102, and GSM 103 programs. In 1987, U.S. exports are forecast to decline because Jordan purchased 20,000 tons from Egypt under a bilateral trade agreement. Other U.S. grain exports to Jordan included 91,000 tons of corn (half the country's requirements), up from 67,000 in 1985. No barley was shipped despite EEP eligibility for the purchase of 60,000 tons. Jordan imported barley from Iraq and Turkey.

### **Jordan Wheat and Flour Imports by Supplier**

Thousand tons



### *U.S. Oilcake Meal Shipments Up*

With the expansion of the poultry and livestock sector, demand for soybean products has continued to increase. The United States, the EC, and Brazil have competed in this market. However, credits have increased U.S. soybean meal exports from 23,722 tons to 29,512 tons, about half of Jordan's 1986 imports. Other suppliers included Belgium (20,000 tons), the People's Republic of China (10,000 tons), Brazil (6,000 tons), and India (5,000 tons). In 1987, U.S. exports of oilcake meal are estimated at 40,000 tons, two-thirds of total imports.

### *U.S. Credit for 1987*

For fiscal 1987, the CCC authorized \$55 million in credit guarantees for the purchase of grains, \$30 million for wheat, \$15 million for feed grains, and \$10 million for rice. This credit, in addition to the extended EEP, will enhance U.S. grain exports to Jordan.

### *New Development Plan for 1986-1990*

Jordan's third Five-Year Plan for 1986-1990 targets GDP growth at an average of 5 percent in real terms and a total expenditure of about \$10 billion (compared with \$9.4 billion under the 1981-1985 Plan). Half has been allocated for water resources, irrigation systems, roads, communications, education, and other social service projects. The Plan emphasizes agricultural development in the rain-fed highlands to encourage production of food and feed grains, livestock, and citrus orchards. It targets an agricultural output of 7.8 percent to reduce food imports, currently about \$550 million annually.

To achieve this goal, the Government is leasing state-owned land for up to 15 years to private companies and individuals willing to cultivate the land. In 1986, about 25,000 hectares were leased for grains and fodder crops. While the Plan's growth targets are significantly lower than those of the 1981-1985 Plan, they may or may not be met depending upon Jordan's ability to mobilize more local financial resources and to reduce dependence on foreign contributions, which have fluctuated sharply in the past.

### *Livestock Production to Increase*

The Plan forecasts expanded livestock, poultry, egg, and meat sectors, with poultry meat output rising to 50,000 tons by 1990 from the 26,800-ton average of 1981-1985, and egg production up 10 percent to 445 million. Red meat output should rise 20 percent to 12,000 tons, indicating increasing demand for feed grains and protein meal, most of which may be imported from the United States.

Jordan's poultry industry requires 280,000 tons of feed annually, 170,000 tons for broilers and 110,000 tons for layers. Currently, poultry meat and egg output exceeds local needs, and the surplus is exported to neighboring countries, including Iraq and Lebanon.

### *Aqaba Port Trade Booms*

During the last 3-4 years, Jordan's transport sector has become increasingly important, with a growing volume of trade at the port of Aqaba. Large volumes of grains, other foodstuffs, and industrial goods are moved through Aqaba to Iraq, and Iraqi oil—especially to Brazil—is shipped from Aqaba. In addition, Syria is using Aqaba for merchandise from the Far East. Aqaba's boom contributes substantially to Government revenue from customs duties and import taxes.

### *Agricultural Situation Improves*

To date, Jordan had an excellent winter, with rainfall by February exceeding the total annual average. As a result, substantially larger areas have been planted with wheat and barley. Rains have also greatly improved range conditions, recharged underground aquifers, and filled dams feeding into the Jordan Valley. Should weather conditions continue to be favorable, 1987 should be one of Jordan's best agricultural years. [Fawzi A. Taha, 202-786-1680]

## **KUWAIT**

### *Economy Thrives Despite Lower Oil Exports*

Despite lower petroleum prices and the nearby Iran-Iraq war, Kuwait's economy has

thrived and its residents continue to enjoy a high standard of living. Extensive foreign investments, both public and private, helped fuel this prosperity. Kuwait earns \$4 billion annually from foreign investments and interest, and has \$35 billion invested as a reserve for future generations. Petroleum revenue provided about two-thirds of Kuwait's GNP—averaging \$21 billion from 1984–86. However, oil revenues plummeted to an estimated \$7 billion last year. Income from services declined as Iran pressured Kuwait to cut its transit trade with Iraq. As a result, activity at Shuiaba—a leading Kuwaiti port—dwindled from 3 million tons of cargo in 1982 to less than 1 million last year.

As petroleum earnings have declined, Kuwait has sought to diversify its economy. Petrochemical and fertilizer production has expanded successfully to meet demand in India, Bangladesh, and Southeast Asia. In addition, food processing capacity and infrastructure have improved, and Kuwait is now importing more raw materials and producing more processed foods locally.

#### *Livestock Projects Bolster Agricultural Output*

Local farms and fisheries provide only 10 percent of the country's food supply. However, Government subsidies have played a major role in increasing poultry meat, egg, and milk output. Domestic production accounts for about a third of the 70,000 tons of poultry meat consumed and half the 50,000 tons of eggs consumed annually. Several commercial dairies provide a third of the milk consumed.

Disruptions in vegetable deliveries by Lebanon and Jordan, and sales to more lucrative markets left Kuwait without top quality supplies of fresh produce at various times in 1985 and 1986. As a result, local investment is being encouraged, and new subsidized projects are drawing more attention. Vegetable production increased a tenth to about 55,000 tons in 1986, including considerable greenhouse cultivation.

The Kuwait Supply Company (KSC) imports corn, lentils, rice, and some other essential foods for distribution through the subsidy system. KSC is seeking more U.S. products at favorable prices. Kuwait Flour

Mills is the key wheat importer, but Australia and Saudi Arabia dominate the market, dimming prospects for U.S. sales. The Union of Cooperatives pools orders from its member stores to negotiate the lowest unit price, a practice that tends to reduce the U.S. share of many high-value products.

#### *Food Imports Decline Somewhat*

Kuwait's agricultural imports declined to about \$1 billion in 1986 from \$1.3 billion the year earlier. High-value products accounted for two-thirds of imports. The 1986 decline was triggered by fewer foreign workers, lower commodity prices, and the dwindling transit trade with Iraq. However, imports of some items increased as demand in suburban supermarkets and fast food shops rose. The major factor behind the upward trend in food imports through 1984 was the tremendous improvement in the average diet from 2,500 calories in 1973 to an estimated 3,401 currently. Kuwait is a growing market for beef, dairy products, fresh fruit, and processed foods. Conversely, imports of soft drinks, fruit juices, and bakery products have declined as local output expands. Kuwait imports 400,000 head of live sheep, mostly from Turkey and Australia, which provide about 45,000 tons of mutton annually. Lower imported beef prices have discouraged local feeding of cattle.

#### *Imports Diversified*

Kuwait's diversification of imports has helped U.S. sales of corn, apples, and soybean meal. The EC was Kuwait's major supplier in 1984–86, with shipments of \$200 million annually. The U.S. average for those years was only \$41 million because the United States lost the barley market to the EC, wheat to Australia, and rice to Asian suppliers. However, lower U.S. corn prices caused shipments to rise a fourth to 95,000 tons in 1986. Although lower rice prices saw only a 2-percent gain for rice sales to 6,495 tons, higher prices saw the value of almond shipments rise from \$2.8 million in 1985 to \$4.8 million in 1986. Another bright spot was the recent sale of grapefruit for \$713,000.

#### *Outlook for 1987 Moderately Favorable*

The policy of providing the best possible diet for all residents continues. Bread, rice,

milk, butter, cheese, tomato paste, lentils, dry beans, and several other items are subsidized. Population growth may exceed 5 percent in 1987, and further gains in per capita consumption of livestock products may lead to a 7-percent rise in food demand, eliciting a slight increase in food imports. Increased sales of U.S. corn, rice, and some processed foods should see a rebound in U.S. exports to more than \$45 million. [John B. Parker, 202-786-1680]

## LEBANON

### *Economic Difficulties Persist*

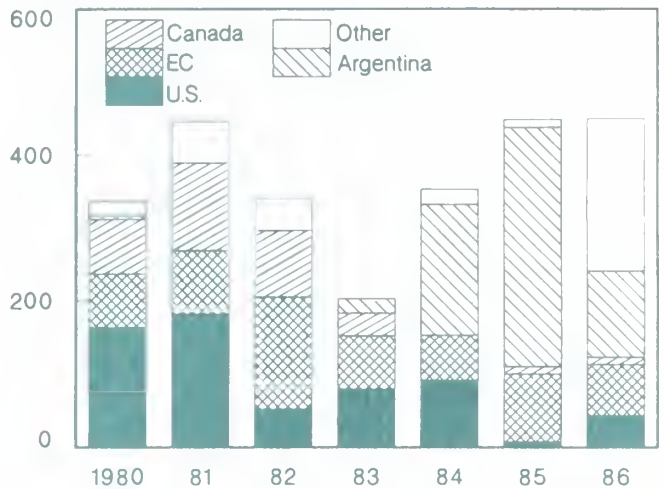
Unending civil strife has been responsible for much destruction, loss of productive capacity, and financial disorder in 1986, and has led to food shortages, a sharp rise in inflation, and general economic malaise. Many people, including many skilled workers, have fled the country taking their assets with them. The Lebanese pound declined to record lows against the U.S. dollar, from LL3.6 in 1980 to LL103 in February 1987.

The failure of the Syrian-sponsored peace plan of December 1985 dimmed hopes for a durable cease-fire and ignited speculation in foreign exchange currencies. The Lebanese reduced holdings of domestic currency and increased foreign currency holdings, pushing purchase prices record high. The Government's runaway expenditures, unsupported by revenue, fueled successive depreciations of the pound. Moreover, the Government lost large tax revenues with the proliferation of illegal ports, resulting in escalating public debt. Three factors contributed to 150 percent inflation: money supply growth, lower real economic growth, and expectation of higher inflation.

Lebanon's foreign exchange reserves have fluctuated widely, from \$2.6 billion in 1982 to \$642 million in 1984, and from \$1.1 billion in 1985 to \$462 million at the end of 1986. This reflects a policy of Government intervention to support the Lebanese pound and to finance imports—especially food and military equipment—as well as reduced transfer payments from Arab countries, the EC, and other foreign sources.

## Lebanon Wheat and Flour Imports by Supplier

Thousand tons



### *Agricultural Production Stable*

Lacking data on Lebanon's agricultural sector, this assessment is based on estimates and supplier trade information. In 1986, agricultural output was about the same as the year earlier. Unfavorable weather in the Bekaa Valley, as well as displacement of farmers, adversely affected cereal output. However, vegetable and fruit output along the coast rose, offsetting the decline in cereals. Wheat output at 14,000 tons was down slightly from last year, and barley at 6,000 tons had declined one-quarter. Citrus production was estimated at 310,000 tons up 3 percent, about the same average as in 1976-78. Oranges compose two-thirds of the citrus crop with the rest tangerines, lemons, and grapefruit. Apple production—at 110,000 tons—was nearly the same as in 1985, and potato output rose 7 percent to 150,000 tons, while olive output rebounded by one-third to 60,000 tons.

### *U.S. Agricultural Sales Rise*

While total U.S. exports to Lebanon declined a fourth from \$139 million in 1985, agricultural exports rose by 67 percent to \$29.3 million, still far below the EC's \$115 million. Lebanon's grain imports approached 600,000 tons, with wheat at 390,000 tons, rice at 35,000 tons, and feed grains at 140,000 tons. In 1986, U.S. wheat exports totaled 42,900 tons, compared with none in 1985, but wheat flour sales decreased from 4,792 tons to 104 tons. The bulk of Lebanon's wheat came

from Argentina, which exported 117,900 tons in 1986 compared to 1985's 304,400 tons. Canada exported 9,500 tons in 1986.

U.S. corn exports increased from 17,820 tons to 49,829 tons in 1986. Corn exports from Argentina were 48,700 tons, up sharply from 1985's 22,200 tons. U.S. soybean meal exports rose 75 percent to 45,310 tons compared to 28,885 tons in 1985. No U.S. barley was sold to Lebanon in 1986 because of higher prices and cheaper shipping costs from France and Turkey. Rice came from Thailand and the EC, which exported 29,583 tons of rice to Lebanon in 1985.

#### *Outlook Gloomy At Best*

Short-term prospects for Lebanon's economic recovery are poor at best. The damage to the country's economy has been massive and will require many years of rehabilitation. In 1982, the Council for Development and Reconstruction was established to rebuild at an estimated \$33 billion cost over 10 years. Meanwhile, the urgent need for imported food continues, and a wide range of U.S. products could be sold through medium or long-term credits. [Fawzi Taha, 202-786-1680]

### SAUDI ARABIA

#### *Petroleum Earnings Plummet*

In 1986, Saudi Arabia experienced its worst balance of payments deficit as export earnings declined a fourth to \$21 billion, and imports remained at \$29 billion. Only 6 years ago, the country had a \$78-billion trade surplus. The decline would have been worse if not for rebounding petroleum output and rising exports of refined petroleum and petrochemicals. Gains from industry, services, and agriculture were not sufficient to offset losses in petroleum revenues, and the country's GNP declined a fourth to about \$73 billion, about half that of 1982. The downward pressure on national income caused a rapid depletion of savings, which once exceeded \$140 billion; they were estimated at \$100 billion in late 1986. Despite revenue shortfalls, elaborate subsidies for agriculture and consumers remain. However, efforts to maintain a relatively normal business

environment and the usual subsidies resulted in a \$13.5-billion budget deficit.

Saudi imports from the United States declined from \$9 billion in 1981 to \$3.9 billion in 1985 and to an estimated \$3 billion in 1986. U.S. exports of manufactured goods declined more than farm products. Saudi Arabia seeks to regain a share of the U.S. market for crude petroleum that was lost to competitors. U.S. imports of Saudi petroleum declined from \$14 billion in 1981 to \$3.6 billion in 1986.

#### *Pace of Agricultural Output Slowed*

Saudi policies curtailing wheat output also slowed the rate of overall agricultural growth in 1986. Agricultural output increased 11 percent compared with 21 percent in 1985. While wheat output grew by 10 percent to 2.3 million tons, it had doubled in 1982, 1983, and 1984. Yet, the reduced Government procurement price at \$553 per ton is still among the world's highest. Wheat occupies about a fourth of the estimated 2.3-million hectares of cropland in Saudi Arabia. Wheat cultivation and harvesting are highly mechanized.

Following spectacular successes in wheat output, efforts are under way to increase production of barley, dates, vegetables, and deciduous fruit. Besides unusually high producer prices, Saudi farmers are enticed by easy credit and real estate wealth. Farmers and investors who cultivate wheat on public lands get a deed to the land after 5 years. In 1986, Saudi Arabia produced only 12,000 tons of barley. With the recent support price hike to \$6 per bushel, farmers are expected to expand the area planted far above the 6,000 hectares harvested last year.

The greatest success has been with horticultural crops and forage. Hundreds of agribusiness enterprises are operating greenhouses producing more vegetables, especially during the lean season when either cold or very hot weather limits local output. Vegetable output has increased rapidly in response to subsidized inputs and improved marketing, and as an alternative to wheat on newly irrigated land. Government subsidies provide free nursery stock and seed and 50 percent of the fertilizer cost.

Subsidies for planting fruit trees, grape vines, and orchards in new irrigation projects have resulted in rising output of dates, oranges, peaches, apples, plums, and grapes. Response to the \$14 subsidy for each date tree planted has been considerable, and output surpassed 505,000 tons in 1986, causing a decline in dried fruit imports. At the same time, local suppliers increased the quality of their packaging and distribution.

In 1986, alfalfa output increased 15 percent to about 2 million tons. Efforts are now under way to develop more irrigated pasture, especially for increasing dairy herds. Dramatic gains are occurring in meat, milk, and egg output as more producers are taking advantage of feed and other subsidies. In 1986, milk output was estimated at 420,000 tons, a 19-percent rise from 1985. Much of the local milk is blended with imported powdered or evaporated milk to prepare reconstituted milk.

Subsidies for feed and facilities contributed to a striking rise in poultry meat output from 82,000 tons in 1982 to an estimated 305,000 tons in 1986. Demand for poultry meat increased more rapidly than forecast, causing large imports to continue while domestic output expanded. In 1986, egg output was 210,000 tons, about four times the 1980-82 average. Imports of some hatching eggs continue, but Saudi Arabia became a net exporter in 1986.

### *Agricultural Imports Stabilize*

At least three major forces influence Saudi demand for agricultural imports: domestic output, the foreign worker population, and changes in consumer demand. With local output up, and the foreign labor force reduced, agricultural imports declined from \$5.4 billion in 1984 to \$4.7 billion in 1985. The rebound in barley imports and the stable processed food sector kept the 1986 value at about \$4.6 billion.

The striking decline in wheat and flour imports already occurred by 1985, but higher wheat seed purchases caused U.S. exports to double to 107,336 tons in 1986. The average price of this wheat declined from \$313 per ton in 1985 to \$253 in 1986. U.S. wheat flour exports to Saudi Arabia have been virtually eliminated.

Saudi Arabia's agricultural imports  
by quantity and value, 1984-1986

| Commodity                   | 1984       | 1985  | 1986* | 1984       | 1985  | 1986* |
|-----------------------------|------------|-------|-------|------------|-------|-------|
|                             | 1,000 tons |       |       | \$ Million |       |       |
| Wheat                       | 191        | 65    | 138   | 58         | 19    | 29    |
| Wheat flour                 | 219        | 36    | 9     | 66         | 10    | 3     |
| Wheat equivalent 1/         | 495        | 115   | 121   | 124        | 29    | 31    |
| Rice                        | 505        | 429   | 502   | 308        | 260   | 255   |
| Barley                      | 5,876      | 5,677 | 6,250 | 1,082      | 785   | 678   |
| Corn                        | 520        | 789   | 600   | 102        | 127   | 75    |
| Sorghum                     | 196        | 198   | 320   | 40         | 39    | 78    |
| Bakery products             | 81         | 78    | 77    | 134        | 127   | 127   |
| Other cereal products       | 47         | 43    | 39    | 15         | 14    | 13    |
| Total cereals and products  | 7,720      | 7,329 | 7,909 | 1,805      | 1,381 | 1,257 |
| Poultry meat                | 156        | 152   | 155   | 168        | 127   | 121   |
| Beef                        | 54         | 58    | 57    | 114        | 140   | 137   |
| Mutton                      | 33         | 39    | 37    | 67         | 77    | 76    |
| Canned meat                 | 15         | 16    | 17    | 32         | 31    | 31    |
| Milk (preserved)            | 134        | 141   | 137   | 211        | 220   | 214   |
| Milk (fresh)                | 24         | 6     | 5     | 21         | 8     | 6     |
| Butter                      | 24         | 23    | 24    | 57         | 55    | 56    |
| Cheese                      | 44         | 45    | 45    | 99         | 97    | 99    |
| Apples                      | 125        | 111   | 109   | 67         | 66    | 65    |
| Grapes                      | 37         | 24    | 19    | 26         | 25    | 21    |
| Bananas                     | 126        | 124   | 121   | 61         | 59    | 57    |
| Oranges                     | 222        | 187   | 190   | 77         | 76    | 75    |
| Peaches                     | 24         | 18    | 21    | 11         | 12    | 12    |
| Lemons                      | 47         | 45    | 41    | 18         | 19    | 16    |
| Canned fruit                | 39         | 38    | 37    | 45         | 41    | 40    |
| Nuts & preparations         | 12         | 12    | 11    | 57         | 60    | 67    |
| Fruit juices                | 225        | 178   | 170   | 180        | 140   | 134   |
| Fresh vegetables            | 545        | 512   | 489   | 152        | 127   | 118   |
| Canned vegetables           | 180        | 167   | 161   | 170        | 144   | 143   |
| Pulses                      | 39         | 38    | 39    | 18         | 21    | 21    |
| Sugar                       | 541        | 580   | 623   | 124        | 132   | 153   |
| Tea                         | 21         | 23    | 28    | 97         | 109   | 94    |
| Coffee                      | 25         | 26    | 27    | 85         | 86    | 77    |
| Nonalcoholic beverages      | 130        | 64    | 56    | 53         | 27    | 23    |
| Spices                      | 22         | 21    | 20    | 146        | 137   | 135   |
| Tobacco products            | 38         | 39    | 41    | 349        | 373   | 384   |
| Soybean meal                | 170        | 185   | 211   | 65         | 64    | 66    |
| Vegetable oils              | 195        | 197   | 205   | 190        | 165   | 181   |
| Live sheep & goats (thous.) | 6,490      | 6,370 | 6,300 | 473        | 441   | 437   |
| Live cattle (thous.)        | 63         | 52    | 49    | 45         | 43    | 41    |
| Other                       | NA         | NA    | NA    | 274        | 245   | 287   |
| Total                       | NA         | NA    | NA    | 5,357      | 4,748 | 4,644 |

NA = Not applicable.

\* Preliminary estimates.

1/ Flour converted to wheat equivalent at 1.39.

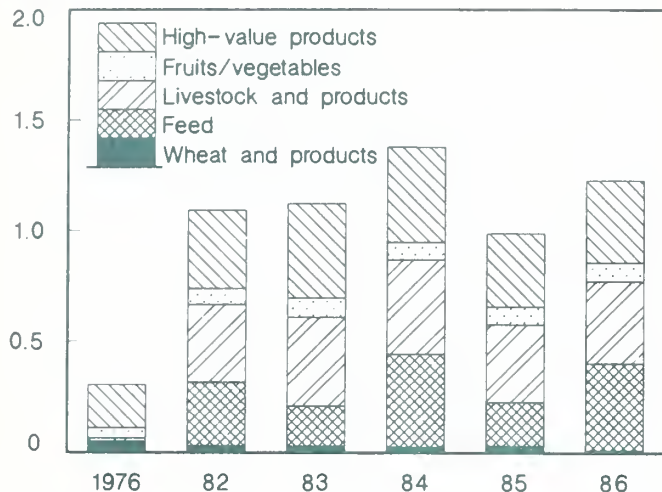
Rice sales suffered with the departure of many Asian construction workers. Imports had averaged 505,000 tons during 1981-84, but declined to 429,000 tons in 1985 and remained below expectations in 1986, when both U.S. and Thai prices dropped.

Saudi grain imports increased 27 percent in 1986 to 8 million tons. Barley imports rose a fifth to 6.3 million tons with larger arrivals from Canada and the United States. Corn imports declined a third from the 1985 peak of 759,000 tons, as importers shifted to barley.

Despite record feed grain imports, imports of meat and livestock products

## EC Agricultural Exports to Saudi Arabia

Billion dollars



remained high. Increased purchases of EC beef at attractive prices caused total beef imports to rise to 57,000 tons at \$137 million. Imports of live sheep remained at 6.4 million head for \$440 million, with larger numbers from Australia offsetting imports from Turkey. Frozen poultry imports stabilized at 155,000 tons, compared with 1983's peak of 228,000 tons. Higher per capita consumption and lower import prices kept imports above expectations.

Demand for dairy products continues to rise because of consumer subsidies, the proliferation of fast food establishments, and increasing use of refrigerators. The EC and Australia competed fiercely for the 45,000 tons of cheese purchased by Saudi importers for \$100 million.

Elaborate subsidies for industry and agribusiness contributed to import substitution for soft drinks, consumer-ready fruit juices, and margarine. Imports of soft drinks declined by a fifth from \$115 million in 1981, as domestic output more than doubled. Greater use of imported ingredients allowed dozens of local producers to gain a larger share of the market for consumer-ready fruit juices and drinks. Imports of peanut butter dropped from nearly 5,000 tons in 1981 to 2,000 tons last year, reflecting the departure of nearly two-thirds of the 80,000 American residents.

## Barley Leads U.S. Export Rebound

U.S. agricultural exports to Saudi Arabia rebounded 11 percent to \$391 million in 1986, as larger barley sales offset the sharp decline in sales of horticultural items. The U.S. share of Saudi Arabia's agricultural imports declined from 20 percent in 1976 to 8 percent in 1986, because of losses in the share of high-value products and intense competition from the EC, Turkey, and Southern Hemisphere suppliers.

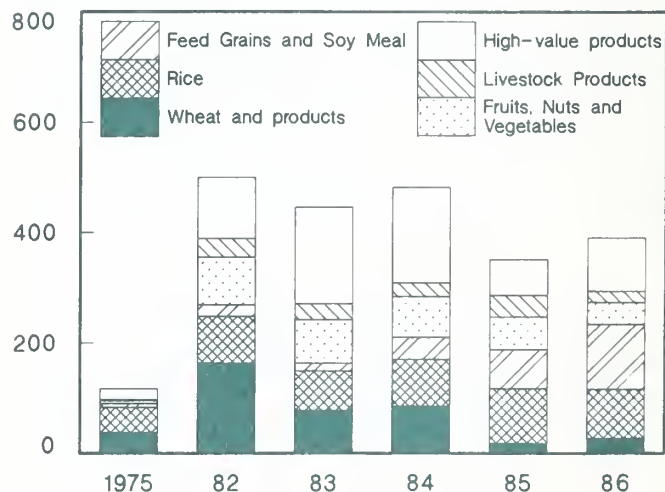
U.S. barley shipments rose from 42,000 tons in 1985 to 1.24 million tons in 1986, or from \$4 million to \$100 million. The EEP for barley has been very successful because private traders are reaping large profits from Government subsidies and bonus payments.

Once the leading U.S. food export to Saudi Arabia, rice's share is declining. Intense competition has created a seller's market. Despite sharply lower prices, U.S. sales slid 1 percent, and lower prices reduced the value by 22 percent to \$78 million.

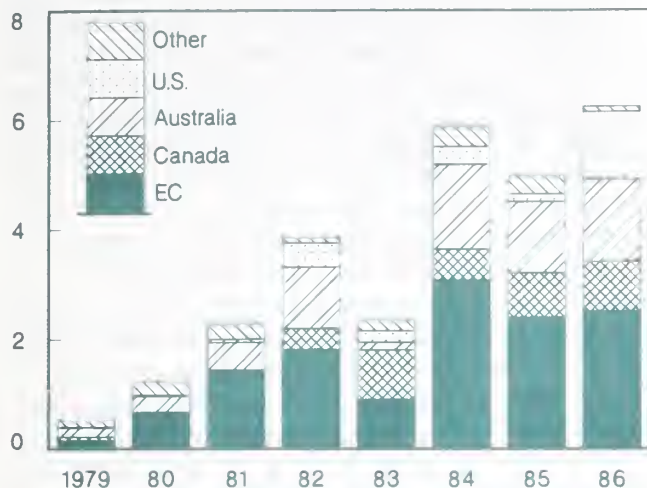
The policy to reduce high-value imports limited U.S. gains. For example, canned peach exports declined from a peak 1,000 tons in 1982 to a fifth that volume in 1986. U.S. apple exports declined to about half the 1984 peak of 28,877 tons as competition from the EC, Chile, Turkey, and southern Africa increased. U.S. sales of pears and grapes declined recently, but a new grapefruit market emerged.

## U.S. Agricultural Exports to Saudi Arabia

Million dollars



Million tons



### *Saudi Food Exports Doubled in 1986*

Saudi agricultural exports doubled in 1986 to \$200 million. Wheat exports increased from less than 50,000 tons in 1985 to about 1.5 million tons at \$100 million in 1986, a huge financial loss, as the producer support price is more than \$500 per ton. Major markets were Egypt, Jordan, South Korea, Indonesia, Sri Lanka, and the Gulf Sheikdoms. Also, Saudi exports of dates, eggs, wheat flour, bakery products, and grapes were above the 1983-85 average.

### *U.S. Sales Should Rise*

Saudi wheat production may show another small rise in 1987. However, exports are likely to fall because of reduced stocks resulting from 1986 exports. Response to the higher barley price is likely to be slow, and barley imports are likely to continue at last year's level. Further gains in U.S. exports of barley and other commodities should see the value for U.S. sales again approach \$500 million. A rebound is under way for some U.S. high-value products related to the Targeted Export Assistance (TEA) program. For example, in early 1986, U.S. apple sales to Saudi Arabia dwindled but staged a comeback under TEA, and the volume should more than double in 1987. [John B. Parker, 202-786-1680]

### *Economy Under Stress*

In 1986, the Syrian economy was suffering from external financial constraints, production inefficiencies, capital flight, and currency depreciation. After growing at 10 percent in real terms during the 1970's and early 1980's, the economy grew at a negative 2 percent in 1985 and 1986. Government revenues were sharply lower, a result of a 30-percent drop in export earnings caused by depressed world oil and cotton prices (the country's major exports), a cut in Arab States' "support funds," foreign lending, and the reduced flow of worker remittances. The foreign exchange shortage prevented and delayed the import of grains and feedstuffs, pesticides, agricultural machinery, capital goods, spare parts, industrial inputs, and other raw material.

The Government maintains stringent import controls, requiring importers to apply to the Central Bank for foreign exchange letters of credit. During the past 2 to 3 years, waiting periods have been growing, and the Government has recently had to tolerate different exchange rates, creating a major black currency market.

Despite periodic Government crackdowns, smuggling has become a major element in Syria's foreign trade and high inflation. As a result, the Government has pushed to expand agricultural output in order to cut imports, has encouraged tourism and remittance deposits by offering preferential exchange rates, and has promoted foreign investment. It has also encouraged the private sector to pay for imported commodities without declaring the source of foreign exchange used.

### *Oil Production Increases*

Oil and gas exports continue to be Syria's principal foreign exchange earners, but since 1980 output has stagnated at 180,000 barrels per day (bpd). In 1984, a large oilfield was discovered at Deir El-Zor, and deliveries of 50,000 bpd began in late 1986. Full production—at 280,000-300,000 bpd—should occur in 1987, making Syria a net oil exporter again.

## *Agricultural Production Improves*

With improved weather, Syria's agricultural output increased substantially in 1986. Wheat output rose 8 percent to 1.85 million tons. Procurement prices were up 17 and 21 percent for hard and soft varieties, respectively, enabling the General Establishment for Cereal Processing and Trade to buy 930,000 tons, 22 percent above last year. The 1987 wheat crop is forecast at more than 2 million tons because farmers responded to increasing procurement prices by expanding area, and because of adequate rain.

Barley output at 1.2 million tons was 62 percent above last year and well above the average for the last 5 years. The 1987 crop is forecast at 1.5 million tons. No barley was imported as farmers responded to the 30-percent hike in the procurement price and delivered 553,000 tons. Barley replaced corn in poultry feed rations, thus lowering the volume of imported corn. In late 1986, Syria exported 10,000 tons of barley to Jordan in exchange for rice. Rice imports totaled 140,000 tons: 100,000 tons from Thailand, 28,000 from Italy, and 12,000 from the United States.

Corn output at 80,000 tons was up 25 percent from last year, providing 20 percent of consumption. Corn is mostly fed to poultry. Imports at 170,000 tons were less than forecast because of the lack of foreign exchange. Poultry output at 79,850 tons was 2 percent lower than last year, but the country is self-sufficient.

The 1986 seed cotton harvest was 370,000 tons, 24 percent less than last year, and lint output was 137,000 tons. The lower crop occurred as farmers shifted to more lucrative crops such as wheat and barley, after the Government increased procurement prices. Production also suffered because of the acute pesticide shortage. In 1986/1987, lint consumption is estimated at 60,000 tons, with the rest exported. Leading buyers are the Soviet Union, Algeria, Italy, France, and Spain. The 1987/88 cotton crop is forecast at 400,000 tons as the Government increased the procurement price by 22 percent.

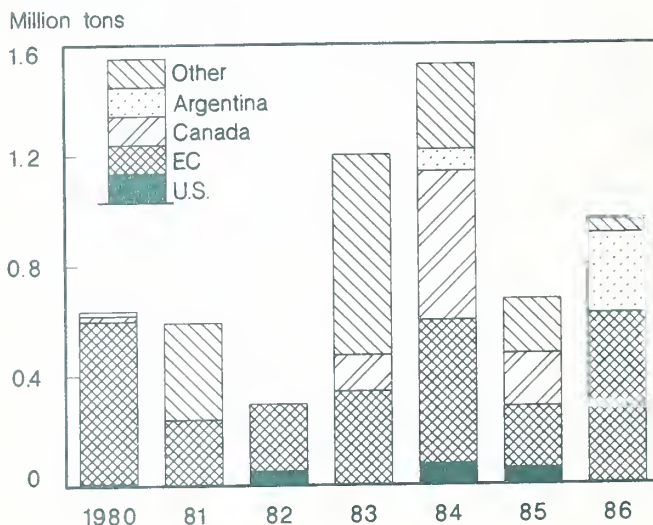
## *New Economic Policies Endorsed*

While most agricultural production is in private hands, the Government has a monopoly over most commodity collection, processing, and distribution. As an incentive to expand output, Syria has permitted the establishment of large scale joint-ventures between the private sector and the Ministry of Agriculture. The private sector's share will be 75 percent, and the new companies will be exempt from import regulations and have tax-free privileges. In addition, in early 1986, private bakeries were permitted to produce higher quality bread and charge higher prices in keeping with the Government's policy of reducing bread subsidies and moving towards a more market-oriented economy. The Government also attempted to further mechanize the agricultural sector to lower production costs and increase competitiveness.

## *U.S. Exports Down Sharply*

U.S. agricultural exports to Syria dropped 80 percent to \$9.5 million in 1986. Syria's foreign exchange shortage undermined its capacity to import grains and feedstuff. In October, the United States cancelled a 700,000-ton EEP for wheat on political grounds, allowing France to monopolize the wheat and flour market, shipping 320,000 tons of soft wheat and 326,000 tons of wheat flour grain equivalent at low prices and with credit. Last year, France supplied about 40 percent of Syria's imports.

## **Syria Wheat and Flour Imports by Supplier**



No U.S. wheat or soybean meal was exported to Syria in 1986, compared to 1985's 53,592 tons and 84,522 tons, respectively. At 70,681 tons, corn exports declined by 58 percent from 1985, but U.S. rice exports equalled 13,069 tons compared to zero last year. [Fawzi Taha, 202-786-1680]

## TURKEY

### *Agricultural Output at Record*

In a sharp turnaround, Turkey's agricultural output rose 7.2 percent in 1986, compared with a 2.4-percent gain in 1985. Good weather led to a record grain harvest, with wheat at 14 million tons, corn at 2.3 million tons, and a 6.3-million-ton barley harvest. The country's GNP rose by 7.9 percent, with industry up 10.9 percent and services 6.2 percent. However, budgetary overruns, continued strong internal demand, and reduced foreign revenues—a result of fewer remittances and delays in Iraqi payments—made lowering the inflation rate difficult, although the Government successfully reduced it to 29.6 percent from 43.2 percent in 1985.

Gradual elimination of export incentives and contraction of the Middle East market caused declines in total Turkish exports, despite continued devaluation of the lira against the dollar at a cumulative rate of 29 percent. While exports to the Middle East declined 26 percent, those to North Africa and other Islamic countries rose 45 percent. Exports in 1986 were a disappointing \$7.5 billion, 5 percent less than in 1985, following strong gains since 1983. Imports totaled \$11.1 billion down 2 percent from last year, and the trade deficit was estimated at \$3.6 billion, slightly lower than in 1985. Turkish trade has been hampered, in general, by declining oil revenues in the Middle East, by rising protectionism in industrialized countries, by the exodus of its foreign workers from oil-exporting countries, such as Saudi Arabia, and by the Chernobyl disaster, which damaged agricultural exports somewhat.

### *Grain Output A Record*

USDA estimated Turkey's 1986 wheat crop at a record 14 million tons, considerably below the Government's estimate of 19 million

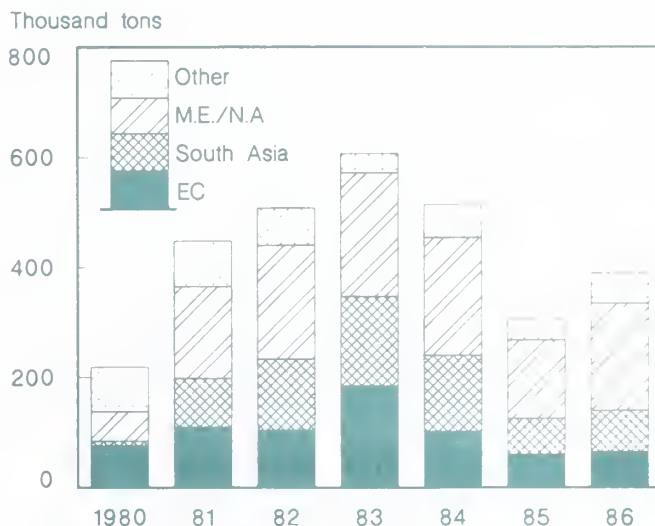
tons. This discrepancy involving area and yield estimates dates back to the late 1940's. The true figure falls between the two estimates, most likely favoring USDA's calculation. While wheat area increased 1 percent to an estimated 8.7 million hectares in 1986, yields rose 9 percent from 1985, the highest ever recorded. The higher yield came about from improved cultivation practices including use of better seed, increased fertilizer and pesticide use, as well as ample timely rainfall.

Feed grain output also rose sharply, with a record 2.3-million-ton corn crop and a near record 6.3-million-ton barley harvest. Turkey has been attempting to increase corn output, but only in the last 3 years have results been visible, primarily with the use of hybrid seed. Production of pulses has continued to increase. In 1986, pulse exports were valued at more than \$200 million, becoming the fourth most important export product behind filberts, tobacco, and livestock products.

### *Grain Imports Continue*

Despite the record wheat crop, Turkey continues to import wheat mainly because it ships wheat to Iran and Iraq in exchange for oil. U.S. wheat under the EEP is almost irresistible. A recent 100,000-ton purchase was made at \$64 per ton, a price Turkish producers could not approach. Furthermore, the Government's 19-million-ton output estimate is probably high and importing

### **Turkey's Pulse Exports**



"cheap" wheat is a way for the Government to protect itself in case of unforeseen shortages. Imported wheat is also blended with lower quality domestic wheat.

### *Citrus Harvest Slightly Off*

Citrus output declined somewhat in 1986 from a relatively poor 1985 crop. The number of orange, lemon, and bitter orange trees was reduced in 1985 because of freezing during the 1985 winter. Tangerine and grapefruit trees survived with no damage, as the cold snap did not reach into Izmir, the main producing region. While total tree numbers have continued to increase, production has varied with changing weather conditions. As data for the citrus industry are poor, production estimates for the just-completed 1986 harvest vary greatly from one source to another. However, good weather implied a better crop.

### *Livestock Output Outpaced by Demand*

Cattle and sheep numbers have been declining since 1982. This is partly a result of improved data, larger exports, and probably a narrowing of producer margins, with cost increases outpacing price rises. Exports of sheep, cattle, mutton, and beef continue to decline because of reduced foreign demand, high domestic prices, and the effect of the war between Iraq and Iran, both major beef and mutton buyers. The lower sheep and cattle exports are a result of smaller purchases by Lebanon. The value of Turkish livestock exports continues to fall from 1983's record \$500 million to \$430 million in 1984, \$327 million in 1985, and \$260 million last year.

### *Trade Liberalization Emphasized*

Since 1984, Turkey has greatly liberalized and simplified its trade policies and regulations in line with its overall market-oriented approach. In agriculture, import liberalization has mostly entailed removing import bans and reducing duties on bulk commodities, moves primarily intended to control inflation, increase competition, and support the export of value-added products. Tariffs were cut primarily on items used for further processing and on products for which Turkey is not self-sufficient. Corn, rice,

soybeans, tallow, and cotton were exempted from duty, and the tariff on meat was reduced.

### *Irrigation To Raise Yields*

The Government continues to give special attention to improving land and water resources, and expanding irrigation. About two-thirds of total public investment appropriated for agriculture is slated for land and water improvement. Irrigated land totals about 3.3 million hectares, about 40 percent of land suitable for irrigation. The Government also continues to promote improved high-yielding seed varieties as a means of raising yields.

Turkey is continuing to expand and intensify its agricultural development. In southeastern Turkey, a massive dam is being constructed that Turkey hopes will increase irrigated area by 2.1 million acres upon completion in 1993. Cotton will be the primary crop grown, with wheat second. In addition, corn, rice, sugar beets, fruits and vegetables will be raised, with yields projected to double. Oilseed and livestock output is forecast up. Turkey likely will produce surplus crops and will market a substantial quantity of commodities including meat in the Middle East, North Africa, and Europe. When Turkey becomes an EC member, she will be the EC's dominant agricultural producer.

The potential increase in Turkey's agricultural output will have a twofold impact on U.S. agricultural trade. First, Turkey's wheat and other grain imports are likely to decline. Second, Turkey will increasingly compete with U.S. commodities, particularly grains, cotton, and pulses, in Third World markets but especially in the Middle East and Europe. However, this potential threat to U.S. exports is unlikely to occur until a decade after the dam's completion, and certainly not before the turn of the century.

Until recently, agricultural incomes in Turkey were strongly influenced by Government price regulation of inputs and outputs. Fertilizer prices were heavily subsidized until 1983 when the subsidy was gradually reduced, declining to 15 percent by 1988. Prices of most products have been raised recently to world market levels. Thus, the number of commodities with minimum

prices was reduced from 25 to 11 in 1986. These prices have been increased slightly less than wholesale prices in recent years, causing market prices for agricultural products to rise 2–3 percent higher than increases in minimum prices. This impels producers to sell in the open market, rather than let the Government intervene at minimum prices. The open market is also preferred because it pays for goods immediately, while under the support system the Government pays only half immediately and the other half over a 1-year period.

### *U.S. Exports Rebound with EEP*

U.S. agricultural exports to Turkey doubled to \$121 million in 1986, led by a quintupling of wheat sales and a record 50,797 tons of rice sold. The rise in U.S. wheat shipments is credited to the continuing EEP program. The large rice shipment is unusual. Past U.S. rice shipments to Turkey often ended up in Iraq or Iran. Now, with lower prices and increasing demand in Turkey, U.S. rice should grasp a substantial market share.

Turkey's current Five-Year Plan aims at enhancing value-added product exports, thus curtailing exports of bulk commodities. Turkey is expected to continue import liberalization of bulk commodities and further devaluation of the lira. At competitive prices, this policy could provide opportunities for U.S. bulk commodity exports in the growing Turkish feed grain sector.

Currently, Turkey has ambitious plans to expand and improve its livestock and poultry output, thus opening the door to increased U.S. exports of corn—although Turkish corn output is expanding rapidly—soybean meal, and soybeans for crushing. Turkey may purchase U.S. baby chicks and is interested in buying more U.S. dairy cattle. A contract for 5,000 dairy cattle has been negotiated under the EEP. Turkey has a growing demand for vegetable oils, particularly soybean oil, a major ingredient in margarine. Currently, Turkey imports most of its soybean oil from Spain, but with competitive prices, U.S. exporters of soybean, cottonseed, and sunflower seed oils could enter the Turkish market. [Michael E. Kurtzig, 202–786–1680]

## UNITED ARAB EMIRATES

### *Diversification Eases Shock of Lower Oil Prices*

Diversification of UAE's economy cushioned the setback of lower oil revenues, which caused UAE exports to decline from \$14 billion in 1985 to about \$10 billion in 1986. However, income from foreign investments, trade, manufacturing, and services kept the GDP slide to 25 percent. Government investment in petroleum refineries, airports, roads, and other infrastructure has been reduced, but agriculture and residential housing are still expanding. The loss of much of the transit trade with Iran and the departure of many foreign workers also reduced economic activity. In 1987, the UAE may exercise its option of exceeding the OPEC quota in mid-1987 and could revive petroleum revenues to near \$10 billion this year.

In 1985, the UAE had the world's highest per capita income estimated at \$22,000, but the 1987 average may be a fourth less. UAE's population is 1.2 million, with the natural increase and permanent settlement of refugees offsetting a decline in foreign workers. During 1983–86, total GDP averaged \$27 billion annually compared with \$32.5 billion in 1981. Small quantities of virtually every farm commodity entering world trade is imported by the UAE because of its high standard of living and free trade policy.

### *Subsidies Spur Agricultural Output*

In 1986, vegetable output doubled to 200,000 tons, led by the bumper—95,000 ton tomato crop, allowing for some exports to neighboring countries. Rising output of cucumbers, green pepper, lettuce, and sugar peas resulted from increased use of subsidies for the construction of 1,000 greenhouses. During several months in 1986, the UAE market was flooded with vegetables and producer prices declined. As a result, the Government activated the support price system, which had not been previously used. The tomato and cucumber surpluses has led to plans to construct a cannery with a capacity of 37,000 tons.

In 1986, fruit output exceeded 100,000 tons, including 57,000 tons of dates and 40,000

tons of citrus. There are new packing facilities in Ras al Khaimah stuffing pitted dates with almonds for duty-free export to the five Gulf Cooperation Council countries. New ports and improved roads allowed farmers near Fujarah to more easily market their oranges and limes.

Poultry meat output increased markedly in recent years to about 28,000 tons in 1986. Egg production was estimated at 16,000, double the 1982-84 average, and new dairies produced about 20,000 tons of milk, which was blended with imported preserved milk to prepare reconstituted milk. The local fish catch of 70,000 tons supplemented rising consumption and reduced import dependency to 75 percent, from 90 percent in 1980.

#### *Agricultural Imports Stabilize*

UAE's agricultural imports have stabilized at about \$1.1 billion, with processed foods peaking and those of bulk items increasing to offset lower prices. Grain imports increased about 11 percent to about 500,000 tons in 1986, including 210,000 tons of wheat, 185,000 tons of rice, and about 105,000 tons of feed grains. Thailand and Pakistan provided most of the rice, Australia nearly all of the wheat and most of the barley. The United States and Thailand were significant corn suppliers. Other major agricultural imports include frozen poultry, dairy products, beef, fresh fruit, onions, potatoes, and pulses.

The UAE has a free trade policy. Restrictions on food imports are related to shelf life and labeling but not to foreign exchange. Most foods enter duty-free, or at an ad valorem duty of less than 5 percent. Much higher duties are levied on tobacco products and alcoholic beverages. Export promotion activities are conspicuous for EC, Australian, South Asian, and Brazilian traders compared to little U.S. activity. As a result, the U.S. share fell from 14 percent in 1981 to only 3 percent in 1986.

#### *U.S. Agricultural Exports Down*

U.S. agricultural exports to the UAE in 1986 decreased 28 percent to \$31 million, partly because of the 82-percent setback for corn exports to only 4,718 tons and a 65-percent decline for apples. The value for sales of fruit juices, nuts, vegetables, and

cooking oil also declined sharply. Greater competition arose from the EC, Turkey, and Southern Hemisphere suppliers. Turkey's agricultural exports to the UAE increased markedly in the early 1980's, averaging \$17 million in 1983-85, including \$3 million annually for pulses.

EC agricultural exports to the UAE increased markedly in the 1970's and remained at about \$252 million annually during 1983-86. Beef exports reached 5,000 tons in 1985, double the 1982 level, while poultry meat deliveries remained more than 32,000 tons annually during 1983-85. EC exports of dairy products exceed \$50 million annually, including 32,000 tons of dry milk, 2,500 tons of butter, and 3,000 tons of cheese. The concentration of high-value products appears to guarantee a steady market for the EC.

Australian agricultural exports to the UAE have shown an upward trend, with a 17-percent increase in wheat deliveries in 1985, to 201,000 tons, while mutton and lamb shipments rose 13 percent to 16,000 tons. EC competition caused New Zealand's agricultural exports to the UAE to fall from \$16 million in 1982 to an average \$12 million during 1983-85.

#### *Sales of U.S. Products May Rise*

If UAE traders take advantage of low U.S. prices in 1987, and the lower value of the dollar triggers a response, then U.S. exports of rice could rise and further gains could occur in sales of U.S. seeds, agribusiness services, and feed. [John B. Parker 202-786-1680]

### YEMEN ARAB REPUBLIC

#### *Economy Stagnates*

Lower worker remittances and lower foreign aid had widespread economic repercussions as the YAR's GDP growth stagnated at 2 percent in 1986. Despite substantial improvement in the balance of payments, Government efforts to control the volume of imports and foreign exchange shortages contributed to accelerated inflation and further pressure on the exchange rate. A positive development was the new oil refinery at Marib, which began to distill 10,000 bpd of domestic petroleum into oil products,

including gasoline, gas oil, and fuel oil. Accordingly, the import volume of oil products declined by 25 percent in 1986, resulting in a net savings of about \$120 million. In 1987, YAR's oil refinery output will cover one-third of the country's oil-product requirements, with increasing capacity in the future.

The policy of import licensing and foreign exchange allocation curbed imports by 22 percent in 1985 and 34 percent in 1986. In addition, the country's international reserves rose to \$410 million in December 1986 compared to \$297 million a year earlier.

### *Inflation Rises*

Based on the first half of 1986, annual inflation is estimated at 70 percent, up from 27 percent in 1985. The rise was attributed to the increasing money supply growth and rising import prices. The 19.5-percent depreciation of the Riyal to YR 8.98 per dollar in December 1986 also contributed to soaring import prices.

### *Inflow of Remittances Plunge*

Remittances from Yemenis working abroad, particularly in the Gulf oil-producing countries, have been YAR's largest source of foreign exchange. In 1986, remittances declined by 25 percent to \$600 million. They had peaked at \$1.2 billion in 1982-83 and contributed 33 percent to the GDP. But in 1986, their share dropped to only 19 percent due to reduction in the number of workers and their wages. Government restrictions on import licensing and foreign exchange contributed indirectly to the decreasing inflow of remittances because workers bring more savings in the form of imported goods. The decline in remittances is continuing and unlikely to improve as employment opportunities in neighboring oil countries diminish.

### *Agricultural Production Up Sharply*

The 1986 grain output rebounded sharply to 720,000 tons because of favorable weather, after three consecutive droughts. Output of sorghum--the staple food crop and principal grain produced--amounted to 550,000 tons, 80 percent above the 1985 crop. Wheat output at 71,000 tons was up 17,000 tons higher than the average for the previous 5 years. Similarly, the barley crop rose to 60,000 tons and corn to

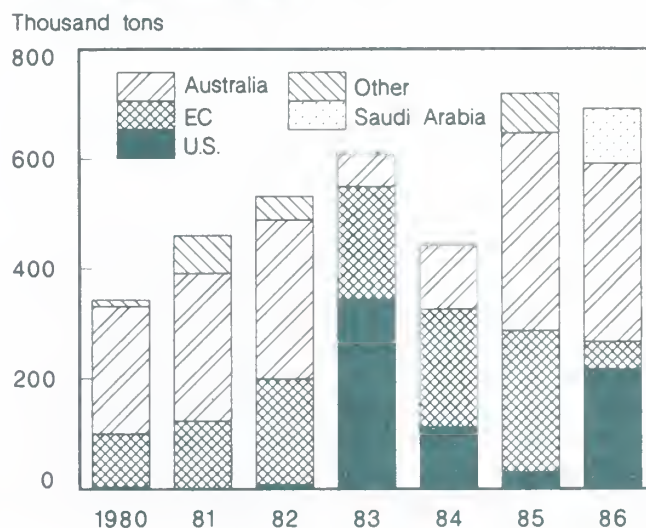
40,000 tons. About 45 percent of grains consumed are imported. Wheat and rice are the major imports, with 1987 wheat imports forecast at 600,000 tons and rice at 40,000 tons.

### *U.S. Exports Double*

U.S. agricultural exports, dominated by food and feed grains, more than doubled to \$30 million. Wheat exports rose to 111,575 tons in 1986 compared to 29,771 the year earlier, and wheat flour increased to 75,663 tons compared to none in 1985. Rice rose 13 percent, but no corn was shipped. Australia and the United States are the major suppliers. In 1986, the YAR concluded a wheat agreement with Australia for 400,000 tons, of which 324,190 tons were shipped. Under the U.S. EEP, the YAR was eligible for 150,000 tons of high-protein-mixed poultry feed, but none was bought in 1986 because the United States would sell only to the public sector.

Livestock production, including poultry, is predominantly in private hands, and a substantial quantity is imported annually, especially from the EC. The YAR likely will import at least 50,000 tons of mixed poultry feed under the EEP in 1987. The United States granted \$10 million for wheat and rice under P.L.480, Title I for fiscal 1987, in addition to \$25 million under the CCC intermediate export credit guarantee program (GSM-103), and \$5 million under the GSM-102 program. [Fawzi Taha, 202-786-1680]

### **Yemen AR Wheat and Flour Imports by Supplier**



## BAHRAIN, OMAN, AND QATAR

### *Petroleum Earnings Plummet*

Lower petroleum prices caused the total value of exports by each of these three Gulf Cooperation Council (GCC) countries to decline more than 40 percent in 1986. Yet, economic diversification and substantial income from foreign investments, services, commerce, and development projects helped cushion the impact of sharply lower oil prices. All three countries have reduced dependence on petroleum exports.

Bahrain seeks to increase income from services, banking, tourism, and shipping. Oman is making great use of its strategic location, with construction of new ports, pipelines, and transportation facilities for use by other GCC members, as well as projects to bolster fishing and agriculture. Qatar has used savings and investment income to launch new petrochemical, fertilizer, gas liquification, and agribusiness projects.

### *GCC Functions*

In 1986, steps were taken to bring the GCC closer together economically and financially. The GCC was formed in 1981 with six members, Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman, to create a common market for greater intratrade and overall coordination. One step—the duty-free entry of Saudi products into the smaller markets—has been encouraged by generous subsidies for wholesalers. In 1986, Saudi food shipments to Bahrain tripled, including more wheat, eggs, and vegetables.

Another step was the recent opening of a causeway from Bahrain to Saudi Arabia contributing to a boom in tourism and wholesale trade, and offsetting declining petroleum revenues. Bahrain expects to increase income from services and strives to keep its importance as an international offshore banking center. In 1986, however, deposits declined about 10 percent as Saudi and European investors sought higher returns in London and North America. Collapse of the transit trade with Iran and Iraq has reduced traders' deposits and loan demand.

Oman's petroleum exports declined from \$4 billion in 1985 to about half that in 1986, forcing Oman to borrow to complete projects. New construction slowed tremendously in 1986. Oman, while seeking to increase petroleum exports, has not been willing to cooperate with OPEC in curtailing output.

### *Subsidies Encourage Agribusiness Investments*

Oman's agricultural output is far greater than that of Bahrain and Qatar combined. In addition to seasonal pastures covering more than 100,000 hectares, recent projects have increased cropland to more than 50,000 hectares. Prospects for more imports of U.S. irrigation equipment, tractors, and improved agricultural technology are favorable. Improvements in traditional irrigation systems have been encouraged in the highlands, while modern techniques have proliferated in more level areas near the coast.

Orchards and gardens are more important to Oman's agriculture than field crops. Next in importance are irrigated alfalfa fields, which provide feed for the growing livestock sector. Traditional orchards of limes, mangoes, and bananas have expanded substantially as more villages received foreign technical help in tapping underground water for irrigation. Also, subsidies have provided more nursery plants, fertilizers, and insecticides at favorable prices.

Qatar's producer subsidies have resulted in new date orchards, irrigated vegetable farms, and new livestock projects. During the 1980's, vegetable output doubled, and a seasonal surplus of tomatoes allowed some exports to neighboring countries in May. Tomatoes accounted for about a third of the 45,000 tons of vegetables produced in 1986. Date output was estimated at 40,000 tons annually during 1984–86, double the 1980–82 volume. The Ministry of Agriculture provides fertilizer almost free to qualified producers and supports prices for crops when necessary. In 1986, fruit production exceeded 55,000 tons, including 40,000 tons of dates and 10,000 tons of citrus.

Feeding imported sheep and cattle is important in Qatar. Sheep imports averaged 300,000 head annually during 1984–86. Poultry

meat output increased to about 15,000 tons in 1986. Egg production was estimated at 11,000 tons, and dairies produced about 15,000 tons of milk, which were blended with imported preserved milk to prepare reconstituted milk.

Bahrain's crops are all irrigated and use supplementary desalinated water when necessary. Traditionally, wells tap water from springs for hundreds of small gardens and greenhouses. The cultivated area includes about 22,000 acres, with date palms covering 12,000 acres. Tomatoes and cucumbers accounted for most of the 45,000 tons of vegetables produced in 1986.

### *Agricultural Imports Rise*

Agricultural imports by all three countries increased in 1986. With nearly 2 million people, Oman's food imports are slightly greater than those of Bahrain and Qatar combined, and have been steadily increasing due to improving diets and population growth. Agricultural imports rose more than 10 percent annually during 1980-85 to approximately \$486 million in 1986. Oman is a growing market for Australian wheat, Thai rice, and more than 30 Indian food products. EC agricultural exports to Oman increased steadily in recent years, averaging \$85 million in 1984-86.

In 1986, Bahrain's agricultural imports rose slightly because of stockpiling at low prices and Saudi bargains. Wholesale subsidies allowed private grocers to maintain reasonable consumer prices. Imports averaged \$215 million annually during 1984-86. The EC, South Asia, Australia, New Zealand, Saudi Arabia, Turkey, and Brazil were important suppliers. EC exports averaged \$64 million annually during 1984-86 as sales of meat, dairy products, sugar, and beer trended upward, but sales of cereals and products declined. U.S. exports declined 9 percent to \$6.1 million as sales of frozen poultry dropped while shipments of other major items such as rice and apples remained steady, and dry pea sales doubled.

Qatar's private importers have built excellent contacts with European, Asian, and Australian exporters, which has left little opportunity for American exporters. U.S. firms dealing with Qatar work through their

European subsidiaries because of the small volume involved.

EC sales to Qatar increased sharply through 1983 with greater sales of dairy products and meat. Sales stabilized at \$55 million from 1983-86 because of lower commodity prices. Before the recent shift from Australian to Saudi wheat, Qatar already had a two-way trade in vegetables. Saudi Arabia sent salad vegetables in the winter, and bought tomatoes and melons in the summer. In 1986, U.S. agricultural exports to Qatar declined 14 percent to \$3.2 million, following the 50-percent drop in 1985, as sales of rice, beef, and canned vegetables shrunk.

### *U.S. Market Share Remains Small*

Agricultural exports by the EC, Australia, and Saudi Arabia are expected to increase in 1987. U.S. sales to Oman may rebound with lower rice and corn prices. Also, the EEP for 1,500 dairy cattle forecasts further sales to Oman beyond the 275 already purchased. Kuwait has purchased 340 U.S. dairy cattle and is expected to become a much larger market for cheese and butter. Qatar should also be a good market for dairy cattle through the EEP.

Total agricultural imports by these three countries will approach \$1 billion, including nearly \$200 million from the EC and more than \$175 million from Australia. U.S. agricultural exports may rise to \$20 million. The U.S. share during 1984-86 was among the lowest in the world, only 2 percent. [John B. Parker, 202-786-1680]

## **NORTH AFRICA**

### **ALGERIA**

#### *Oil Revenues Decline*

Despite bad weather in 1985/86, agricultural production was not severely affected. Grain output was below 1985's record levels but continued to respond to improved producer incentives, and new records were reached in pulse, potato, poultry meat, and egg production.

Algeria depends on oil and natural gas exports for 98 percent of its foreign exchange

earnings. The decline of OPEC prices in the winter of 1985/86 cut Algeria's 1986 export earnings to about \$8.3 billion, 41 percent below 1985. Because of the export decline, the 1985 import budget was cut 30 percent. Food imports, however, rose as a proportion of total imports, from one-fifth in 1985 to one-fourth in 1986. Food imports are expected to remain at \$1.9 billion for 1987.

While Algeria managed to reduce its external debt in the early 1980's, the decline in oil earnings forced it to borrow externally in 1985 and 1986. Total debt is presently estimated at \$17.4 billion. Falling oil earnings raised the debt-service-to-export ratio from 32 percent in 1985 to about 40 percent in 1986.

Lower export earnings have also intensified President Bendjedid's campaign of self-reliance—"computer sur soi." Public enterprises are being made accountable for their deficits, consumer imports have been cut, prices for many items are being raised or freed completely, and investments outlined in the 1985-89 Development Plan have been scaled down. The Plan's targeted real growth rate of 6.6 percent was reached in 1985. GDP growth is estimated to have slowed to 4 percent in 1986, and is likely to fall below Algeria's 3.2-percent population growth rate, producing its first year of per capita GDP decline.

A primary motive behind the self-imposed austerity program is to retain economic sovereignty and avoid the rescheduling of Algeria's external debt. Algeria has a sterling reputation with creditors for always being prompt with loan payments. Official announcements indicate that debt payments will remain prompt, even at the expense of sharply lower imports.

The measures suggested by Bendjedid and Finance Minister Khellef are similar to reform programs prescribed by the World Bank and the International Monetary Fund (IMF)—especially measures encouraging private initiative to take over tasks poorly performed by state agencies. However, Algerian officials have pledged to keep most food subsidies intact. In his annual address to the walis (local Governors) in November, Bendjedid stressed more local initiative and less reliance on the bureaucracy in Algiers.

He was particularly critical of "red-tape" and lack of accountability by civil servants.

Some aspects of Bendjedid and Khellef's agenda met stiff resistance by members of the ruling FLN party still loyal to the more doctrinaire Socialist vision championed by former President Boumedienne. They objected, in particular, to clauses allowing greater scope for foreign capital to invest in Algeria. The leadership argued that more liberal investment legislation would permit a capital inflow that would offset the loss of oil earnings and permit growth and development to resume. The party rank and file, however, vetoed the proposal.

### *Grain Harvest Lower but Still Good*

Algeria's 1986 grain harvest totaled 2.63 million tons, about 400,000 tons below last year's record, but still a good harvest. Until bad weather in April and May struck the eastern producing areas and the crop was abandoned to grazing in the South, a 3.3-million-ton harvest had been forecast. Weather had been favorable for planting, and farmers had responded to higher producer prices with increased acreage. Most of the production shortfall was in the East, near Tunisia, which was also severely affected by extreme weather conditions. Wheat production was 1.445 million tons, of which 925,000 tons were durum and 520,000 tons bread wheat. Barley production totaled 1.1 million tons.

Wheat-milling capacity continues to increase, now 2.3 million tons from 1.5 million tons in 1980. Most of this capacity is allocated to the milling of bread flour. Algeria is almost self-sufficient in bread flour production, with imports now less than 100,000 tons annually. Semolina (durum flour) imports totaled 700,000 tons (980,000 tons durum equivalent) in 1986 and are likely to decline as more milling capacity becomes available. Italy is Algeria's main semolina supplier.

### *Algeria Diversifies Trade*

Algeria is initiating more south-south trade and diversifying its sources of supply. President Bendjedid's 1986 visit to South America brought about several trade agreements: Uruguay will ship 30,000 tons of

tallow, 1.2 million square feet of cattle hides, and a small quantity of tobacco, and Argentina concluded a long-term agreement to supply 200,000 tons of vegetable oil, 200,000 tons of semolina, 3,000 tons of meat, and 6,000 tons of tobacco. Tobacco production also is being encouraged to reduce imports. Greece has agreed to barter 200,000 tons of wheat for 600,000 barrels of crude oil in 1987.

### *Algeria Viewed as Potential Market for U.S. Dairy Products*

The United States sees Algeria as a potential outlet for surplus CCC dairy stocks. Discussions are under way to export butter oil, cheese, and NFDM to Algeria. Algeria imports dried and evaporated milk and blends it with fresh local milk. In 1986, NFDM's lower price relative to evaporated milk induced ENAPAL--the National Food Products Supply Corporation--to shift to importing NFDM exclusively. This means a loss of an evaporated milk market for the Canadian Dairy Commission, the principal supplier. The U.S. entry into the Algerian dairy market will be difficult as Canada and most EC members have surplus stocks to export at or below cost.

The Algerian National Institute of Agronomy held a conference on increasing the local content of feed rations. Algeria plans to develop feed rations that can use domestic products, to replace or substitute for the American-style corn and soymeal diet used presently.

### *Keen Competition for Market*

Weather has been favorable for this crop year. The possibility of dryness and Saharan winds in late spring when wheat enters the heading stage makes yield forecasting difficult. However, an above-average crop is likely if moderate weather persists.

Algeria is trying to reduce imports of all products. Imports of higher valued items such as almonds and dried fruits, in which U.S. suppliers had led, have been eliminated. Similarly, import agreements for butter, cheese, and red meat have been allowed to expire. Government publicity campaigns urging households to economize on food are a clear sign that Algeria is serious about cutting the fat.

Export competition for the Algerian market is increasing. The U.S. EEP program, rather than neutralizing EC competitiveness, has stimulated counter-reprisals and tougher dealing, not only from the EC but also third countries, such as Canada, whose market share has been cut through U.S. price subsidies. The EEP is also being offered to derail some of the above-mentioned agreements, such as that on tallow between Algeria and Uruguay. [David W. Skully, 202-786-1680]

## EGYPT

### *Economic Situation Deteriorates*

Egypt's balance of payments worsened in 1986 as income from petroleum exports, remittances, and tourism declined. New borrowing enabled the import of essential commodities and prevented a dip in the standard of living. Egypt's foreign debt rose to a record \$38.6 billion. Lower petroleum prices and fumbling marketing plans caused revenues from exports of petroleum and products to decline from an average \$3 billion in 1983-85 to about \$1.7 billion in 1986. Italy, usually Egypt's top market for crude oil, was replaced by Israel in 1986 because of a long-term marketing agreement. Egypt's inflation rate rose to 17 percent because of the declining purchasing power of Egypt's pound, from 75 U.S. cents in January to less than 50 cents by December 1986.

Remittances passing through the Egyptian banking system were down despite some relaxation of regulations. The "free market exchange" system now provides exchange for about \$3 billion of imports, compared with \$10 billion moving through the Central Bank of Egypt.

Despite foreign exchange problems, Egypt's economy did relatively well in 1986. Many Egyptians working in other countries returned with large savings. A combination of increased cash flow and easier credit has perpetuated the housing boom. Private enterprise accounted for 33 percent of the rising manufacturing output in 1986, up from 23 percent a decade ago. Greater agricultural investment is occurring, with thousands of new greenhouses. Land development projects are expanding cropland faster than urban encroachment. Farmers are getting better

yields, higher prices, and greater profits because of changes in price policies and adoption of improved technology.

### *Crop Yields Rise*

Egypt's overall agricultural output increased 3.9 percent in 1986 compared with 4.4 percent in 1985. Grain output rose 6.7 percent to 8.3 million tons, and further gains are forecast for 1987. Efforts to produce more rice stemmed from policy changes related to growing concern over shortages during the summer. Gains for feed grains to 4.7 million tons resulted from higher producer prices and concern of feedlot operators with wide fluctuations in imported feed supplies.

A Cereals Improvement Program resulted in gains for rice and barley, and contributed to a record corn harvest of about 3.9 million tons. Greater use of hybrid varieties, fertilizer, and improved cultural practices led to higher yields. Barley has been a favorite winter crop for land reclamation projects, and the 1986 harvest was up 21 percent to 175,000 tons. Rice output rebounded 9.7 percent to 2.54 million tons paddy. Wheat production rose 1.4 percent to 1.923 million tons, as larger farms in the northern Delta increased output, while smaller Delta farms shifted to more profitable bersim and vegetables. Sorghum output increased 9 percent to 600,000 tons.

Fruit production was below expectations in 1986 because citrus yields were down. Gains are anticipated in 1987 as new orchards come into production. Orange output rose 2 percent to 1.2 million tons. Output of pears, peaches, and figs showed an upward trend, as new orchards near the Mediterranean began to bear fruit, providing excellent profits ranging from \$800 to \$9,000 an acre.

In 1987, vegetable output might surpass 10 million tons from 9.6 million tons in 1986. Improved varieties raised yields as did an increase in multiple cropping. Tomato output reached a record 3.4 million tons due to the USAID project, which seeks to improve yields through greater use of better varieties. In 1986, more than 1,000 greenhouses were established to provide more tomatoes and other vegetables, especially during the lean season. Production of mint, jasmine, and herbs for export is increasing. Income from

some of these labor-intensive crops exceeds \$2,000 per acre.

### *Livestock Output Gains*

Gains in red meat output resulted in a 4-percent rise in total meat output—estimated at 611,000 tons. More beef and water buffalo calves were fattened in feedlots with subsidized feed. Feedlot programs bolstered beef output to about 370,000 tons, but severe feed shortages remained, and beef imports increased to about 200,000 tons in 1986.

Poultry meat output increased 2 percent to 197,000 tons, as gains by small farmers offset less output by commercial operators. At various times in the last 2 years, some chickens had to be destroyed at 4 weeks old because commercial broiler operations did not have feed, a chronic problem the Government is tackling. Egg output rose slightly to 135,000 tons.

Demand for milk, one-third of which is imported, exceeds supply. Programs to improve local cattle breeds and public feedlot projects have raised milk yields. As a result, milk production increased 8 percent to about 2.5 million tons, with public dairies accounting for much of the increase.

### *Agricultural Imports at \$4 Billion*

Egypt's agricultural imports declined to slightly less than \$4 billion in 1986 from \$4.1 billion in 1985. Lower prices stimulated the volume of bulk items to rise by 7 percent. Grain imports remained near the 9 million tons of 1985. While Egypt diversified its sources, the U.S. share reached 60 percent from 44 percent in 1985.

Egypt's wheat and flour imports decreased 9.3 percent to 6.6 million tons, although lower prices caused the combined value to decline a fifth to \$1 billion. The U.S. share rose from 35 to 46 percent. Australian deliveries held at 2 million tons, while those of Canada declined. Saudi Arabia donated 149,000 tons of wheat. EC wheat flour deliveries were a fifth below the 1.2 million tons shipped in 1985, and larger purchases from the United States caused total flour imports to remain high at 1.45 million tons.

Egypt's agricultural imports by quantity and value, 1984-1986

| Commodity                       | 1,000 tons |       |       | \$ Million |       |       |
|---------------------------------|------------|-------|-------|------------|-------|-------|
|                                 | 1984       | 1985  | 1986  | 1984       | 1985  | 1986  |
| Wheat                           | 5,079      | 4,750 | 4,660 | 775        | 677   | 622   |
| Wheat flour                     | 1,401      | 1,810 | 1,445 | 385        | 432   | 366   |
| Corn                            | 1,723      | 1,912 | 2,140 | 295        | 247   | 239   |
| Cottonseed oil                  | 167        | 190   | 160   | 117        | 132   | 123   |
| Soybean oil                     | 40         | 5     | 3     | 25         | 4     | 3     |
| Sunflower oil                   | 125        | 218   | 235   | 57         | 130   | 128   |
| Other vegetable oils            | 55         | 71    | 81    | 30         | 48    | 47    |
| Butter, butteroil               | 59         | 58    | 61    | 125        | 122   | 127   |
| Cheese                          | 50         | 43    | 52    | 82         | 77    | 92    |
| Preserved milk                  | 97         | 88    | 80    | 135        | 120   | 118   |
| Tallow                          | 273        | 252   | 195   | 150        | 121   | 110   |
| Tobacco                         | 52         | 44    | 54    | 266        | 253   | 293   |
| Tea                             | 70         | 74    | 79    | 185        | 199   | 160   |
| Coffee                          | 12         | 14    | 15    | 35         | 40    | 38    |
| Sugar                           | 850        | 885   | 918   | 275        | 290   | 319   |
| Beans, peas, lentils            | 50         | 44    | 29    | 22         | 20    | 19    |
| Potatoes                        | 50         | 54    | 52    | 6          | 7     | 8     |
| Fruits & vegetable preparations | 89         | 116   | 105   | 160        | 185   | 177   |
| Sesame                          | 31         | 12    | 22    | 25         | 23    | 21    |
| Soybeans                        | 60         | 28    | 150   | 21         | 24    | 41    |
| Soymeal                         | 225        | 350   | 300   | 68         | 67    | 87    |
| Beef                            | 177        | 182   | 198   | 260        | 267   | 274   |
| Mutton                          | 12         | 17    | 14    | 18         | 34    | 28    |
| Cattle, live (thous.)           | 165        | 67    | 48    | 141        | 87    | 70    |
| Sheep & goats, live (thous.)    | 22         | 20    | 17    | 4          | 4     | 4     |
| Wool                            | 14         | 16    | 19    | 60         | 63    | 73    |
| Cotton                          | 0          | 39    | 37    | 0          | 60    | 58    |
| Frozen poultry                  | 120        | 85    | 75    | 127        | 109   | 74    |
| Canned meat                     | 14         | 21    | 29    | 34         | 38    | 48    |
| Others                          | NA         | NA    | NA    | 198        | 192   | 209   |
| Total                           | NA         | NA    | NA    | 4,081      | 4,072 | 3,976 |

NA = Not Applicable.

SOURCES: U.S. Agricultural Counselor Reports, Cairo, and ERS matrix table estimates

Lower world commodity prices reduced Egypt's expenditures for imports of tea, coffee, beef, frozen poultry, and some other high-value items. Tea imports rose 8 percent to 79,000 tons, but the value declined 20 percent to \$160 million.

The EC continued to dominate Egypt's beef imports because of low prices provided through restitution payments. Sales were about 180,000 tons, 90 percent of Egypt's total imports. Imports of frozen poultry remained near 80,000 tons, although arrivals from Brazil were only about a tenth the 65,000 tons received in 1985. U.S. sales of 43,000 tons of frozen poultry through the EEP were not all shipped quickly, but 1986 export of 24,739 tons was more than double 1985's volume.

Imports of many commodities were inadequate in 1986 because foreign exchange controls hindered essential purchases. These

problems are likely to recur in 1987 as factories run short of imported raw materials, especially for manufacturers of textiles, cigarettes, and soap. Cotton stocks are low, and higher imports will be needed to keep some factories operating this summer. Stocks of leaf tobacco are at a 4-month supply. Tobacco imports rebounded a fourth to 53,000 tons in 1986, but the cigarette shortage worsened. The United States, the EC, and India were major suppliers. U.S. exports of tallow were down 31 percent to 143,000 tons, and some soap factories may have to close in the coming year.

Egypt's trade policy emphasized private trade, whose share of agricultural imports approached \$900 million. Private concerns with pooled resources specialize in high-value imports that require careful handling. Most processed foods are imported by private firms often through duty-free zones, which circumvent customs.

### *Egypt Strives to Diversify Exports*

Cotton dominated Egypt's agricultural exports, which averaged \$657 million during 1984-86, and provided about two-thirds of the value. Orange exports remained at 175,000 tons, mostly shipped through a trade agreement with the Soviet Union. Exports of grapefruit, green beans, pepper, and strawberries to Europe increased recently. GSM 102 credit allowed U.S. cotton sales to Egypt to reach \$52 million in 1985. The two-for-one ratio between Egyptian cotton export prices and imports of short staple U.S. cotton allowed Egypt to keep the value of its cotton exports above \$360 million in 1986.

Efforts to revive rice exports have been disappointing because of a severe shortage last summer, low world prices, and better credit from other suppliers. Egypt's rice exports rose to 92,000 tons in 1986 from 19,000 tons in 1985. At the same time, private importers purchased 44,000 tons from Taiwan that sold quickly in the open market at a time when rice at the fixed price was scarce in co-op shops.

### *U.S. Agricultural Exports Down*

Egypt's worsening foreign exchange situation took a toll on U.S. farm product sales, which fell 10 percent to \$805 million. Delays in using credit and lower prices were

the main reasons, although the quantity of bulk items increased. U.S. grain shipments rose 20 percent to 4.5 million tons, but the value remained at \$398 million. Wheat shipments increased 25 percent to 2.1 million tons, but the average price fell 17 percent to \$111 per ton. Wheat flour shipments rose 31 percent to 692,482 tons, as the price fell 18 percent to \$173 per ton.

While U.S. corn exports to Egypt increased 11 percent to nearly 1.7 million tons, Thailand's entry as a new supplier providing 90,000 tons caused the U.S. share to decline. The United States provided 1.5 million tons in 1985, or 80 percent of all corn imports; Argentina accounted for the rest. In 1986, the U.S. share fell to 77 percent while Argentina's share dropped to 18 percent, and Thailand had 4 percent of the market. Efforts to provide more feed led to much larger shipments of U.S. soybean meal and soybeans. Smaller exports of tallow and vegetable oils accounted for much of the overall decline of \$86 million for U.S. farm sales.

#### *Output to Rise in 1987*

Emphasis on improving crop yields and increasing output of livestock products should see a 4-percent rise in Egypt's agricultural production in 1987. Corn imports may rise to 2.5 million tons, providing extra feed to increase meat output by 10 percent. Further gains for corn and wheat imports may push total grain imports to more than 10 million tons, another record. However, lower prices and foreign exchange restrictions for luxury items will probably keep the value of all agricultural commodities near \$4 billion.

Egypt's foreign exchange crunch is likely to worsen in 1987, and will increase the focus on purchases through credit programs, countertrade and local currency arrangements. The piecemeal approach followed by the United States may be good for bulk items and frozen poultry, but it tends to exclude many high-value products. [John B. Parker, 202-786-1680]

### MOROCCO

#### *Positive Economic Adjustment*

Morocco's economic austerity and structural adjustment program is beginning to

yield positive results. Preliminary 1986 trade figures indicate a significant reduction in Morocco's foreign exchange deficit. Commercial exports increased 3.4 percent to \$2.5 billion, and imports fell by 11 percent to \$3.7 billion. Exports of consumer goods—knitwear, in particular and agricultural products—were especially strong, bolstered by a 20-percent devaluation of the dirham. However, this was offset by an 11.5-percent decline in phosphate sales. Imports were reduced by a good harvest and lower import prices for oil, wheat, and vegetable oil.

#### *Agricultural Reforms Progress*

Morocco has been under the scrutiny of the IMF and commercial creditors since 1981. Government reform measures, although predominantly aimed at industry, have addressed the food and agricultural sector. Considerable attention is being given to increasing self-sufficiency in wheat production. Producer prices have been raised and, under World Bank auspices, more credit is being extended to small, rain-fed farms. All farmers are tax exempt through the year 2000. Moroccan policies have effectively taxed domestic grain production and subsidized grain imports. On the demand side, consumer subsidies for wheat and wheat products are being raised very gradually. Export monopolies for fruits and vegetables were disbanded, and the incentive structures of publicly managed estates were reformed. Attempts to expose protected crops, such as sugar and rice, to market forces have yet to be implemented—primarily because of large investments in processing capacity.

The IMF and the World Bank (under the Agricultural Sector Adjustment Loan) both advocate price and subsidy reforms. In the last two decades, the rain-fed cereal sector has had a negative rate of protection, while industrial crops have had positive rates. In addition, an overvalued currency and inefficient public control of commodity trade have muted the transmission of world prices, tending to increase imports and reduce exports.

The Office Nationale Interprofessionale du Cereales et des Legumes (ONICL) is the public agency responsible for managing Morocco's grain supply and controlling grain imports. ONICL procures wheat from

domestic producers at the official price, but only buys about 10 to 15 percent of domestic production. During the early 1980's official producer prices had been equal to or greater than the world price. However, because little domestic production is procured at the official price, the effective price to farmers has generally been about two-thirds the official price.

### *U.S. and France Vie for Wheat Market*

Competition between the United States and France for the Moroccan wheat import market by means of price and credit subsidies has lowered the import cost of wheat to about half that of world prices, further inducing ONICL to import rather than procure domestically. On the demand side, bread, wheat flour, and couscous (from durum flour) prices are all subsidized at a fraction of their cost. ONICL administers and regulates the margins of millers and bakers. These regulations have tended to discourage local procurement and encourage reliance on ONICL as a supplier. Under the Agricultural Sector Adjustment Program, ONICL's operations are to become more responsive to market forces.

The wheat flour subsidy has diluted price incentives to producers. Subsidies on fertilizer, certified seeds, and other inputs--such as tax incentives for purchasing tractors and other equipment--were introduced to compensate for the weak product market. Input subsidies, however, proved to be very costly to administer and further biased the distribution of public benefits to richer farmers.

### *Subsidies To Be Reduced*

The present IMF standby arrangement calls for elimination of consumer subsidies on sugar and vegetable oils by 1988. The subsidy on wheat flour is slated to be eliminated by 1990. These three items account for almost all food subsidies, which currently compose 11 percent of Government spending. Because bread is the mainstay of the diet and a major expense of poorer households, cutting bread subsidies is difficult politically. Some form of compensation or targeted subsidy may be implemented to benefit only lower income households. The present policy subsidizes all consumers.

All fertilizer subsidies are scheduled to be eliminated within 2 years. The grain markets are to be gradually liberalized. Presently, the ONICL intervenes at the mill level, rebating the millers with the difference between flour's purchase price and subsidized price. As the flour subsidy is lifted, there is less need for the Government to guarantee the mill's margin. Under one proposal, mills will purchase wheat at an official price set at a premium to the world price. This cushion of protection is to encourage domestic wheat production. The income multiplier generated by higher rural incomes and the foreign exchange savings from domestic rather than international procurement far outweigh any protectionist allocative inefficiency in Morocco.

Tariff rates on consumer goods have been cut significantly since 1983. The maximum rate has dropped from 100 percent to 45 at present, and will fall to 25 percent in 1988. This measure intends to shake up the industrial sector so that resources will be concentrated in growth areas. A 2.5-percent import tax was imposed January 1, 1987, on grain imports and a 5-percent import licensing fee initiated. These measures will generate revenue, as well as provide a slight disincentive to import grain.

Large subsidies for sugar beet production and distortions in the price regime for wheat milling products led to prices for beet pulp and wheat bran substantially below their resource costs. This inhibited the production and marketing of forage crops, which, in turn, has led to growing corn imports. The Government recently started raising the prices of beet pulp and bran, and research is under way to devise feed rations that would minimize imports and encourage local feed use and production.

Under Sectoral Adjustment, the dairy industry is being gradually deregulated. Surplus disposal programs by the EC and the United States continue to distort prices and induce imports of nonperishable dairy products. In 1981, consumer subsidies on milk were removed, and consumption dropped substantially. The existing physical plant, however, is geared to the subsidized price regime. Current policy is to allow a period of adjustment without placing milk processors out of business.

Poor weather has caused some crops to be abandoned in the South. Rainfall was much lower than normal in December and January, but revived in February. Weather in April and May ultimately determines the harvest, but, as of March, an average harvest is not unlikely. The United States has managed to keep its large share of the Moroccan wheat market through price subsidies under the EEP program, and a willingness to extend credit under GSM credit facilities. Much of this success is by default: France has been less aggressive in the Moroccan market than in other North African countries. This is partially because Morocco's debt carries a high risk of default, and France is heavily exposed. The United States, in effect, is picking up the lifeline. [David W. Skully, 202-786-1680]

## TUNISIA

### Grain Harvest Disaster

Drought decimated Tunisia's 1986 grain harvest, which totaled only 606,000 tons, one-third 1985's record harvest. The short harvest boosted agricultural import requirements at a time when lower oil prices reduced Tunisia's export earnings. Oil exports accounted for roughly half of Tunisia's exports in the early 1980's. The nation's commercial trade deficit, which had been lowered through austerity measures imposed in 1985, increased in 1986. Tunisia's growing external debt, its trade and fiscal deficit, have brought it under IMF conditionality. The 1987-1991 Economic Development Plan has been formulated to complement the Economic Adjustment Program (EAP) sponsored, in part, by the World Bank. The Plan and the EAP give high priority to agriculture and efforts to reduce agricultural imports.

Tunisian grain production

| Commodity   | 1985 harvest | 1986 harvest |
|-------------|--------------|--------------|
|             | Tons         |              |
| Total wheat | 1,380,000    | 474,000      |
| Durum       | 1,069,000    | 378,000      |
| Bread       | 311,000      | 96,000       |
| Barley      | 686,000      | 132,000      |

Tunisia's economy was virtually stagnant in 1986. Declines in agricultural output, lower oil prices, and a poor tourist season—following the U.S. bombing of Libya—offset increases in industrial production. Tunisia's external economic difficulties came to a head for the first time in summer 1985 when a shortage of foreign exchange forced the Government to control all imports. Imports were reduced as was the trade deficit. However, many industries were forced to lay off workers for lack of imported inputs. The trade deficit was again \$1 billion for 1986 and is expected to remain above that mark for 1987—about 7 percent of GDP.

### Long-term Prospects Focus on Agriculture

Under the program supported by the IMF, the World Bank, and Tunisia's creditors, the trade deficit is slated to decline by 1991 to 4 percent of GDP, and the Government is required to balance its budget. Fiscal policy for the 1987-1991 plan will involve lowering public investment, a comprehensive value-added tax system, and gradual removal of subsidies on consumer goods and industrial inputs. Subsidies on food items are scheduled to be removed completely by 1991. Raising bread and other basic food prices is a delicate political maneuver; a doubling of bread prices in January 1984 led to rioting, and the price increase was rescinded. Subsequently, price increases have been very gradual.

Agriculture is given a leading role in the Development Plan. It is expected that increased production will contribute to lower imports and an improved trade balance, and will create new jobs, especially in south and central Tunisia. Tunisia hopes to be self-sufficient in meat production by 1991, 75 percent self-sufficient in dairy goods, and more self-sufficient in cereals. Consumer subsidy reductions and higher returns on wheat production should reduce Tunisia's wheat imports considerably. The emphasis on meat self-sufficiency, however, likely will require greater imports of corn and soy products.

In August, the Tunisian dinar was devalued, which will improve Tunisia's competitiveness in export markets and has

already increased tourism, which got a lift from the severe European winter.

### *Agricultural Policy Seeks Privatization*

To reduce the deficit, the Tunisian Government is taking steps to privatize many functions, including management of cold storage facilities, distribution of agricultural inputs, and milk collection. Managerial reforms are under way on the large public farms.

Producer prices for grains were raised once again for the 1986/87 crop. Durum and soft wheat prices were raised 15.6 and 6.3 percent, respectively, while barley prices were increased 9.1 percent. The 1987 harvest will depend, as always, on the weather in April and May. The weather has been good, to date, and a grain harvest between 1.2 and 1.5 million tons is likely.

On the consumer side, bread prices were effectively raised in 1986 by shrinking the standard loaf size from 700 grams to 600. The shrinking-loaf gambit has been successfully employed in Egypt. Prices for semolina (durum flour), bread flour, and vegetable oil were each raised about 8 percent. Subsidies on wheat products and vegetable oils compose almost all of Tunisia's consumer subsidy program. Subsidy cuts for 1986 lowered the program cost by one-third, or 72 million dinars.

Tunisian producer prices

| Commodity      | 1986 price | 1987 price |
|----------------|------------|------------|
| Dinars per ton |            |            |
| Durum          | 160        | 185        |
| Soft           | 160        | 170        |
| Barley         | 110        | 120        |

Consumer prices for wheat products

| Item   | Prior to 8/31/86 | After 8/31/86   |
|--|------------------|-----------------|
| Prices in Tunisian Dinars<br>(1 TD = \$1.16) |                  |                 |
| Pasta (kg)                                   | 0.225            | 0.240           |
| Couscous (kg)                                | 0.230            | 0.250           |
| French                                       |                  |                 |
| Baguette                                     | 300 grams-0.070  | 250 grams-0.070 |
| Large Loaf                                   | 700 grams-0.100  | 600 grams-0.100 |

The World Bank's structural adjustment program for agriculture, as well as USAID, Canadian, Australian, and a variety of European programs, is focusing on improving the availability of credit, inputs, high-yield and drought-resistant varieties, and better marketing facilities to small holders in the rain-fed central and southern regions. Management reform and privatization of former European-owned irrigated perimeters are likely to improve resource allocation. Efficiency gains in both the rain-fed and irrigated areas are likely to reduce Tunisia's agricultural imports significantly. Tunisia is likely to remain dependant on external sources for a large proportion of its animal feed supplies.

The drought adversely affected Tunisia's livestock sector, requiring increased imports of barley, soymeal, and feed concentrates to prevent herd losses. Soymeal imports virtually doubled from 59,000 to 111,000 tons; Argentina was the major supplier in 1986 with 83,000 tons. Cattle and poultry generally had access to feed, but there was some emergency slaughtering of lambs and sheep.

### *Normal Harvest Forecast*

Weather conditions have been favorable thus far. The Tunisian Government forecasts the 1987 grain harvest at the 1.3- to 1.5-million-ton range, a normal harvest. The weather in April and May, however, is the ultimate determinant of crop yields.

### *Competition Intensifies*

In 1986, the United States allotted Tunisia 1.1 million tons of wheat under the EEP and \$41 million of GSM-102 commercial credit. Tunisia used all of the \$41 million to purchase 550,000 tons of wheat under the EEP and 100,000 tons under PL-480 Title I. China is supplying 150,000 tons of wheat in the 1986/87 crop year in exchange for Tunisian phosphate products. The delivered wheat is probably of French origin. The United States took 73 percent of the Tunisian wheat market in 1986--France was the other supplier--and 90 percent of the corn market--Argentina supplied the rest. However, Tunisia will benefit from a special EC restitution for 500,000 tons of French corn. Tunisia has been importing Thai rice in shipments of 6,000 tons. [David W. Skully, 786-1680]

# EC-U.S. COMPETITION INTENSIFIES IN MIDEAST AND NORTH AFRICAN MARKET

By

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**ABSTRACT:** Competition has increased between the United States and the European Community (EC) for the Middle East and North African food market. Various mechanisms have been used to gain a trade advantage in this lucrative market. Despite striking price reductions for wheat, barley, wheat flour, and frozen poultry among other commodities, through the EEP, U.S. agricultural exports to the region remain less than half those for the EC. During 1984-86, EC exports averaged \$6 billion annually compared with \$3 billion for the United States.

**KEYWORDS:** Middle East and North Africa, European Community, United States, Export Enhancement, competition, grain imports

The EC is well ahead of the United States as a food supplier in most countries of the region. The ratio ranges from 1,000 to 1 (\$337 million to \$331,000) in Iran in 1985 to a 3-to-1 ratio in Saudi Arabia. The United States has a 2-to-1 advantage in the Israeli market, but this is only 1 percent of the region's agricultural imports. In Egypt and Iraq the race is close. The EC dominates processed foods with a 4-to-1 ratio in wealthy Kuwait and the United Arab Emirates. In Oman, Bahrain, and Qatar, the ratio is 10 to 1 in favor of the EC. Algeria was a steady market for EC farm products during 1983-86, triple the U.S. value. The export share to Morocco fluctuates considerably.

During the 1980's, EC exports of livestock products and processed foods to the area showed remarkable gains, usually a response to lower prices. The striking upward trend for imports of certain commodities following steep oil price hikes during 1973 has now flattened, and food export gains are more difficult to achieve.

## *Demand Still Rising*

The trend in the demand for food and agricultural raw materials is still rising, although at a diminishing rate, because of population growth, subsidies, improved distribution, and lagging production. The region's population is more than 270 million and growing more than 3 percent annually.

Dependence on food imports remains high, ranging from more than 90 percent for the Gulf Sheikdoms, 60 percent for Iraq and Saudi Arabia, and about 33 percent for Iran. Turkey is the largest producer in the region by far, with Egypt and Iran following.

In 1985 and 1986, a combination of declining petroleum revenues and lower commodity prices halted the overall growth of expenditures for food imports. However, the volume of imports of most items showed little variation, in contrast to the strong gains made in the 1970's.

## *Both EC and U.S. Exports Below Record*

The EC and the United States supplied about one-third of the region's \$27 billion of food imports in 1986. EC sales increased from \$4.7 billion in 1979 to a peak of \$7.8 billion in 1981, before settling to an average \$6 billion annually during 1982-86. U.S. exports had their best year in 1984 with \$3.7 billion. EC competition and reduced total imports caused a 32-percent decline to \$2.5 billion in 1985, with a 6-percent rebound last year. Competition has arisen from other major producers, Third World countries in the Southern Hemisphere, Turkey, and Asia. In addition, as petroleum revenues dropped, the need to conserve foreign exchange caused some countries to shift towards countertrade or other barter arrangements.

## Competition Varies by Commodity

Competition between the United States and the EC has been greatest for wheat, wheat flour, and livestock products. Moreover, U.S. concern about the loss of the Saudi barley market engendered the EEP, and U.S. sales rose. The EC is usually far ahead in the livestock market, a modest competitor for rice, and a token competitor for corn. EC competition for soybeans, peanuts, and cotton is limited, and EC sales of soybean oil and meal are often reexports of end products of U.S. soybeans. Most preserved foods are either imported or prepared locally from

imported ingredients. EC-processed food exports often carry a U.S. brand name because U.S. multinational corporations have outlets in Europe that serve the region's market.

Cereal and bulk items are more important in North Africa, while the Mideast is a battleground for many processed foods. Without its great edge in Algeria, the EC might not be much ahead of the United States in sales to North Africa. The Gulf Sheikdoms have been excellent markets for the EC, their wealth having prevented drastic declines in consumer demand when oil prices fell. EC exports of preserved vegetables have exhibited

EC wheat and flour exports to the Middle East and North Africa

| Country      | Wheat      |       |       |       |       |       | Wheat flour |       |       |       |       |       |
|--------------|------------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|-------|
|              | 1980       | 1981  | 1982  | 1983  | 1984  | 1985  | 1980        | 1981  | 1982  | 1983  | 1984  | 1985  |
|              | 1,000 tons |       |       |       |       |       | 1,000 tons  |       |       |       |       |       |
| Algeria      | 598        | 326   | 680   | 814   | 941   | 802   | 484         | 554   | 754   | 484   | 514   | 656   |
| Cyprus       | 8          | 12    | 9     | 21    | 23    | 32    | 2           | 0     | 0     | 0     | 0     | 0     |
| Egypt        | 1,480      | 166   | 34    | 1,021 | 291   | 2     | 518         | 1,014 | 824   | 278   | 1,294 | 1,234 |
| Iran         | 306        | 232   | 55    | 25    | 168   | 2     | 0           | 10    | 0     | 0     | 0     | 0     |
| Iraq         | 0          | 15    | 0     | 0     | 0     | 30    | 17          | 55    | 158   | 253   | 150   | 153   |
| Israel       | 0          | 10    | 0     | 0     | 15    | 6     | 17          | 21    | 13    | 1     | 2     | 0     |
| Jordan       | 19         | 50    | 40    | 18    | 9     | 7     | 103         | 113   | 25    | 5     | 3     | 1     |
| Lebanon      | 61         | 63    | 103   | 53    | 59    | 0     | 9           | 15    | 36    | 15    | 2     | 10    |
| Libya        | 0          | 3     | 3     | 11    | 0     | 0     | 337         | 277   | 267   | 303   | 310   | 233   |
| Morocco      | 1,098      | 1,670 | 775   | 480   | 20    | 1,570 | 0           | 0     | 7     | 0     | 0     | 0     |
| PDR Yemen    | 13         | 24    | 6     | 11    | 0     | 8     | 35          | 34    | 22    | 31    | 31    | 34    |
| Qatar        | 0          | 0     | 0     | 0     | 0     | 0     | 0           | 0     | 4     | 0     | 0     | 0     |
| Saudi Arabia | 0          | 0     | 4     | 2     | 0     | 5     | 297         | 52    | 60    | 85    | 46    | 27    |
| Syria        | 5          | 18    | 80    | 265   | 430   | 183   | 422         | 159   | 118   | 55    | 66    | 30    |
| Tunisia      | 251        | 376   | 337   | 355   | 187   | 400   | 0           | 0     | 0     | 0     | 0     | 0     |
| Turkey       | 0          | 1     | 0     | 0     | 0     | 0     | 0           | 2     | 10    | 0     | 50    | 9     |
| UAE          | 0          | 0     | 0     | 0     | 0     | 0     | 0           | 1     | 2     | 2     | 2     | 2     |
| Yemen AR     | 3          | 2     | 13    | 15    | 0     | 15    | 68          | 87    | 128   | 138   | 154   | 185   |
| TOTAL        | 3,842      | 2,968 | 2,139 | 3,091 | 2,143 | 3,062 | 2,309       | 2,394 | 2,428 | 1,650 | 2,624 | 2,574 |

| Wheat flour in wheat equivalent (X 1.39) |       |       |       |       |       |       | Total wheat and flour in wheat equivalent |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|
| Algeria                                  | 673   | 770   | 1,048 | 673   | 714   | 912   | 1,271                                     | 1,096 | 1,728 | 1,487 | 1,655 | 1,661 |
| Cyprus                                   | 3     | 0     | 0     | 0     | 0     | 0     | 11  | 12    | 9     | 21    | 23    | 32    |
| Egypt                                    | 720   | 1,409 | 1,145 | 386   | 1,799 | 1,714 | 2,200                                     | 1,575 | 1,179 | 1,407 | 2,090 | 1,716 |
| Iran                                     | 0     | 14    | 0     | 0     | 0     | 0     | 306                                       | 246   | 55    | 25    | 168   | 2     |
| Iraq                                     | 24    | 76    | 220   | 352   | 209   | 213   | 24  | 91    | 220   | 352   | 209   | 213   |
| Israel                                   | 24    | 29    | 18    | 1     | 3     | 0     | 24  | 39    | 18    | 1     | 18    | 6     |
| Jordan                                   | 143   | 157   | 35    | 7     | 4     | 1     | 162                                       | 207   | 75    | 25    | 13    | 8     |
| Lebanon                                  | 13    | 21    | 50    | 21    | 3     | 14    | 74  | 84    | 153   | 74    | 62    | 14    |
| Libya                                    | 468   | 385   | 371   | 421   | 431   | 324   | 468                                       | 388   | 374   | 432   | 431   | 324   |
| Morocco                                  | 0     | 0     | 10    | 0     | 0     | 0     | 1,098                                     | 1,670 | 785   | 480   | 20    | 1,570 |
| PDR Yemen                                | 49    | 47    | 31    | 43    | 43    | 47    | 62  | 71    | 37    | 54    | 43    | 55    |
| Qatar                                    | 0     | 0     | 6     | 0     | 0     | 0     | 0   | 0     | 6     | 0     | 0     | 0     |
| Saudi Arabia                             | 413   | 72    | 83    | 118   | 64    | 38    | 413                                       | 72    | 87    | 120   | 64    | 43    |
| Syria                                    | 587   | 221   | 164   | 76    | 92    | 42    | 592                                       | 239   | 244   | 341   | 522   | 225   |
| Tunisia                                  | 0     | 0     | 0     | 0     | 0     | 0     | 251                                       | 376   | 337   | 355   | 187   | 400   |
| Turkey                                   | 0     | 3     | 14    | 0     | 70    | 13    | 0   | 4     | 14    | 0     | 70    | 13    |
| UAE                                      | 0     | 1     | 3     | 3     | 3     | 3     | 0   | 1     | 3     | 3     | 3     | 3     |
| Yemen AR                                 | 95    | 121   | 178   | 192   | 214   | 257   | 98  | 123   | 191   | 207   | 214   | 272   |
| TOTAL                                    | 3,210 | 3,328 | 3,375 | 2,294 | 3,647 | 3,577 | 7,052                                     | 6,296 | 5,514 | 5,385 | 5,790 | 6,556 |

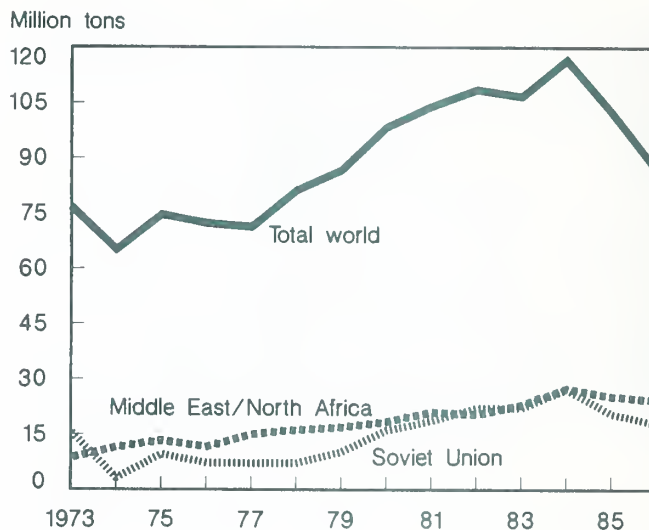
a striking upward trend, and exports of canned peaches and pears increased markedly to the Arabian Peninsula as U.S. sales dwindled. On the other hand, the United States has recently made excellent gains in sales of dry beans, lentils, and peas.

### *United States Leads in Wheat and Flour Exports*

Regional imports of wheat and flour combined rose from 7.5 million tons in 1974 to a peak 27 million tons in 1984, before declining to 24 million in 1986. EC exports of wheat and flour combined (in wheat equivalent) averaged about 5.5 million tons in 1982-84, rising to 6.5 million in 1985 and falling slightly below 6 million tons in 1986. In 1986, U.S. exports were about 8.7 million tons, following a 50-percent decline in 1985 from 10 million tons in 1984.

In 1985, EC exports of wheat and flour combined to Algeria, Egypt, and Morocco each exceeded 1.5 million tons. These three markets account for about two-thirds of EC exports to the region. Often, a decline in wheat sales will be partially or fully offset by

### **Comparing Wheat and Flour Imports**



larger flour shipments. For example, EC wheat exports to Egypt declined from 1 million tons in 1983 to 2,000 tons in 1985, just as flour shipments rose from 278,000 to 1.2 million tons. The EC lost the Syrian wheat flour market, which totaled 422,000 tons in 1980 and only 30,000 tons in 1985, but wheat exports rose from 5,000 tons to an average 300,000 tons during 1984-86.

European Community: exports of beef to the Middle East and North Africa by quantity and value, 1982-85

| Destination   | 1982    | 1983    | 1984    | 1985    | 1982    | 1983    | 1984    | 1985    |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
|               | Tons    |         |         |         | \$ 1000 |         |         |         |
| Algeria       | 16,723  | 24,197  | 20,987  | 19,507  | 26,746  | 37,318  | 26,834  | 25,646  |
| Morocco       | 4,158   | 3,938   | 5,605   | 4,023   | 4,978   | 4,748   | 5,073   | 3,449   |
| Tunisia       | 4,943   | 10,672  | 15,880  | 11,779  | 7,745   | 15,397  | 18,699  | 13,399  |
| Libya         | 14,743  | 16,840  | 9,691   | 13,759  | 27,861  | 23,869  | 13,108  | 18,278  |
| Egypt         | 12,171  | 28,657  | 140,334 | 170,158 | 14,923  | 35,319  | 158,763 | 175,687 |
| North Africa  | 52,738  | 84,304  | 192,497 | 219,226 | 82,253  | 116,651 | 222,477 | 236,459 |
| Bahrain       | 49      | 232     | 838     | 777     | 275     | 661     | 1,821   | 1,688   |
| Cyprus        | 1,479   | 3,493   | 3,356   | 5,272   | 3,467   | 4,982   | 4,454   | 6,473   |
| Israel        | 1,977   | 4,402   | 6,651   | 3,183   | 4,615   | 9,628   | 12,169  | 5,492   |
| Iran          | 24,547  | 32,733  | 40,101  | 28,751  | 36,213  | 52,052  | 61,079  | 38,366  |
| Iraq          | 35,646  | 12,989  | 29,765  | 35,820  | 84,837  | 21,757  | 38,444  | 48,180  |
| Jordan        | 393     | 2,542   | 1,768   | 637     | 981     | 3,547   | 2,254   | 783     |
| Kuwait        | 2,218   | 4,612   | 7,043   | 8,320   | 4,661   | 7,133   | 9,925   | 9,801   |
| Lebanon       | 1,667   | 1,658   | 1,517   | 5,217   | 3,989   | 3,974   | 2,151   | 3,708   |
| Muscat & Oman | 4       | 61      | 20      | 409     | 32      | 186     | 545     | 1,119   |
| Qatar         | 535     | 745     | 1,278   | 1,248   | 1,314   | 1,695   | 2,665   | 2,411   |
| Saudi Arabia  | 4,257   | 14,378  | 27,381  | 35,803  | 11,838  | 27,459  | 43,353  | 52,390  |
| Syria         | 25      | 28      | 32      | 11      | 47      | 124     | 73      | 51      |
| South Yemen   | 18      | 26      | 27      | 43      | 62      | 101     | 100     | 93      |
| UAE           | 1,988   | 2,926   | 4,534   | 4,428   | 6,240   | 7,659   | 8,506   | 9,243   |
| Yemen         | 364     | 544     | 472     | 763     | 899     | 769     | 681     | 921     |
| Middle East   | 75,167  | 81,369  | 124,967 | 130,682 | 159,470 | 141,727 | 188,220 | 180,719 |
| Total         | 127,905 | 165,673 | 317,464 | 349,908 | 241,723 | 258,378 | 410,697 | 417,178 |

SOURCES: Nimex and United Nations trade runs for the EC 10.

## Beef—An EC Success and U.S. Loss

As regional incomes have risen, diets have improved. Millions now can afford to eat red meat once a week. The combination of refrigeration, modern grocery stores, and low prices of EC beef contributed to the change. In 1985, the EC sent 349,908 tons of beef to the Mideast and North Africa for \$417 million.

Rising sales and declining prices explain how the EC captured 55 percent of the market in 1984 and remained the leading supplier, with 52 percent of the 667,000 tons imported in 1985. The per-ton price for EC beef to the Mideast and North Africa declined from \$1,464 per ton in 1980 to only \$1,294 in 1984. Gains in sales of medium-priced cuts to Saudi Arabia, Iraq, and the Gulf countries caused the average value to rise to \$1,192 per ton in 1985. Egypt was the top external market for EC beef in 1985, taking 170,158 tons for \$158 million, or only \$1,032 per ton. The EC share of Egypt's beef imports rose from only 10 percent in 1982 to 88 percent in 1985. Other important markets were Saudi Arabia, Iraq, and Iran.

As the EC increased its market share, others' share declined. Argentine exports, for example, fell from 75,000 tons in 1982 to only a third that volume in 1985, with a complete loss of the Egyptian market. U.S. beef exports to the region declined from 2,793 tons in 1984 to 2,432 tons in 1985, with a slight drop in value to \$15 million. The average price rose

to \$6,000 per ton, and in 1986, sales dipped to \$9 million. The top market was Saudi Arabia, buying 1,704 tons for \$10 million and in 1986, 1,054 for \$5.9 million, still far below the \$25 million in the days of high petroleum revenues.

### Certain Countries Targeted

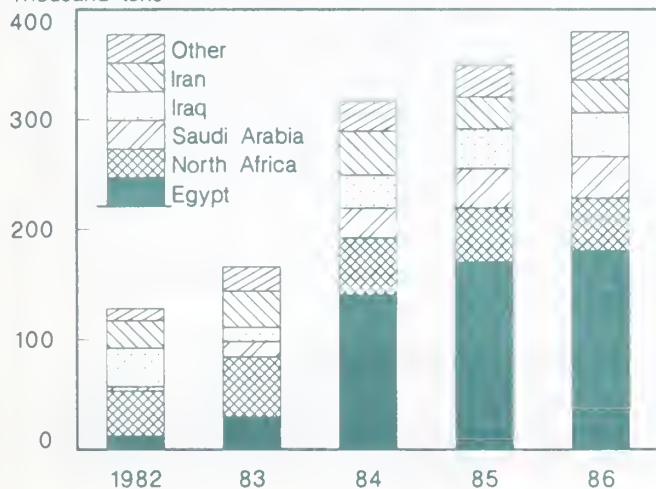
Countries targeted by both the United States and the EC are those where agricultural imports compose a major share of food requirements and where demand is unlikely to diminish. They zero in on Egypt, Saudi Arabia, Iraq, and Algeria, whose total agricultural imports exceeded \$14 billion in 1986.

### The Egyptian Market

Egypt is the top U.S. market in the region. For the EC, Egypt ranks behind Saudi Arabia and sometimes Algeria. The United States and the EC combined provided nearly half of Egypt's agricultural imports, and competition between these two suppliers over the last 6 years has been intense. The EC pulled into the lead with sales of \$981 million in 1984, with U.S. exports of \$909 million. The United States led in 1985 despite a 2-percent decline to \$891 million, as EC sales declined by 15 percent to \$840 million. The EC led in 1986 with the accession of Spain and because of the appreciation of European currencies. In 1986, greater U.S. exports of wheat, flour, and frozen poultry through the EEP were offset by smaller shipments of tobacco and tallow.

### EC Beef Exports to Middle East/North Africa

Thousand tons



Egypt's food imports continue to grow despite efforts to produce more domestically and changes in trade policy. In 1986, about \$4 billion worth was imported, with considerable gains in cotton, tobacco, and soybean meal. Lower prices trimmed the bill for wheat and corn. Imports of some processed foods are hampered by policy-induced constraints on importing high-value items. Concern about adding to Egypt's huge foreign debt of \$38 billion hurts prospects for expanding cash sales of U.S. farm products.

Competition for the Egyptian market is greatest for wheat, flour, and livestock products. There is a close correlation between EC surplus commodities and Egyptian import needs. The major foods subsidized by the Egyptian Government include wheat, wheat flour, rice, vegetable oil, sugar, dairy

products, beef, and lentils. Except for rice, Egypt imports all of these in large quantities. With the exception of rice, the EC has a surplus of these commodities. However, the EC is not a threat for feed grains, cotton, pulses, soybean products, and tallow, and U.S. competition is not strong for a number of high-value products, including chocolates, bakery products, and soup, which are usually sold to private traders in duty-free zones.

#### *EC Diversifies Commodity Mix*

As competition intensified, the EC has diversified its exports to Egypt. Its wheat and flour exports peaked at \$416 million in 1980, 50 percent of the total value of Egyptian agricultural imports from the EC. By 1985, the wheat and flour share dropped to 29 percent. Countering this decline were gains for beef, cheese, vegetable oils, margarine, and processed foods. Egypt will remain an important market for the EC, regardless of what happens to its share of the wheat trade.

The U.S. share of Egypt's wheat imports rose to 40 percent in 1986, up from 34 percent in 1985. However, this is below the 58 percent recorded in 1983 when the PIK wheat flour subsidy provided 1 million tons of flour at \$115 per ton, and U.S. exports of wheat and flour reached 3.85 million tons.

The EC has been a consistent flour supplier, but wheat sales have fluctuated widely from the peak of \$263 million in 1980 to only \$354,000 in 1985. EC exports of wheat flour to Egypt, mostly by France, peaked at 1.29 million tons in 1984 and remained there in 1985. U.S. flour sales through all methods reached 1.4 million tons in 1983, about double the 1982 level but below the 545,000 tons of 1984 and 1985. Flour sales rebounded in 1986 to 692,482 tons with the help of the EEP.

#### *EC Dominates Livestock Product Imports*

The EC provided an average 75 percent of Egypt's dairy product imports in 1980-86, although Egypt was the leading market for American cheese and butter exports during the last 3 years. EC beef shipments to Egypt rose from 28,000 tons in 1983 to 156,000 tons in 1985 for \$158 million. While gaining more than 90 percent of the Egyptian market for imported beef in 1985 and 1986, EC sales of frozen poultry declined from 17,967 tons in

1983 to 2,082 tons in 1985 because Brazil and Hungary offered lower prices. Brazil and the United States each sent about 50,000 tons in 1986.

Egypt benefits from both EC export subsidies and concessional financing. The EC provides a refund to exporters to bring high internal Community prices in line with, or below, prevailing world prices. Export restitution payments vary weekly, and Egypt is able to make purchases at times when prices are most attractive. Additionally, EC members sometimes offer special credit financing to unload certain surplus commodities. France, in particular has a special commodity export bank, *Compagnie Francaise d'Assurance de Commerce Extérieur* (COFACE), offering easy credit on food purchases.

EC exports of processed foods benefit from export restitutions. These subsidies are calculated by the Commission Management Committee, which sets refunds for basic CAP commodities (milk, dairy products, cereals, eggs, sugar, molasses, isoglucose) used in the manufacture of processed products, by adding the subsidies available for each CAP commodity used in the product's recipe or the overall subsidy calculation.

#### *Outlook for Competition in Egypt*

EC food sales to Egypt can be expected to rise with concessional financing, marketing efforts through bilateral trade negotiations, and stronger ties due to aid programs. As domestic wheat demand grows, Egypt will tap suppliers offering easy credit. Of Egypt's major wheat and flour suppliers, the United States offers by far the most concessional financing terms under P.L. 480, which allows a 10-year grace period followed by 30 years to repay at a 3-percent interest rate. Recently, an added feature allowed for Egypt's repayment in local currency if justified by the American Embassy in Cairo. But present P.L. 480 financing restricts wheat and flour exports to Egypt to about 1.5 million tons a year, beyond which wheat sales are made under various credit programs.

#### *Saudi Arabia Major Market for EC*

Saudi Arabia is the second major market for the EC following the United States. As

competition for world food trade intensifies, the strong EC position in the dynamic Saudi market has become a major focus for U.S.-EC competition. The value of Saudi food imports in the last 3 years, which averaged \$4.9 billion annually, places it far in the lead as a cash customer among all developing countries.

EC sales to Saudi Arabia have been at the \$1 billion to \$1.5-billion range, but a fall in barley sales caused EC agricultural exports to Saudi Arabia to decline 38 percent in 1985. A striking rebound in barley sales brought EC exports back to the \$1.2 billion range. Aggressive marketing helped widen its lead over the United States.

Saudi Arabia was the top Mideast cash customer for U.S. farm products in 1985 at \$351 million. The value grew rapidly during the 1970's and peaked at \$500 million in 1981. Without EEP barley sales, U.S. agricultural exports to Saudi Arabia would have declined about 20 percent in 1986.

During 1984-86, EC sales to Saudi Arabia were thrice those of U.S. sales, in contrast to a 2-1 ratio in the late 1970's. EC export promotion has focused heavily on Saudi Arabia because it was a growth market for processed foods, feed, and beef. Trade associations and export firms from France, Denmark, West Germany, and Italy have been very active in Saudi Arabia with trade shows, fair exhibits, distribution of samples at supermarkets and fast food shops, and advertising campaigns.

The EC's trade policies make their products competitive. Restitution payments, which fluctuate according to the CAP, and the extent of surplus for a given commodity have allowed the EC to capture a greater share of Saudi imports of barley, dairy products, and processed foods than the United States. While the EC has used export subsidies to develop the Saudi market, U.S. exporters relied totally on free market forces until May 1986, when the EEP was launched to help America recapture a share of the 5-million-ton barley market.

#### *The Iraqi Market*

In the race for the Iraqi market, the United States and the EC have been at loggerheads. In 1986, their exports were each in the vicinity of \$350 million. Iraq presents

some of the best market development opportunities for U.S. farmers, although problems have been encountered concerning prompt use of approved credit. With GSM 102 credit, sales in fiscal 1986 were scheduled for \$475 million, and 80 percent of the funds were used. During the last 3 years, Iraq became a new market for U.S. corn, tobacco, soybean meal, pulses, sunflower oil, sugar, dairy products, tallow, cotton, dairy cattle, beverage ingredients, almonds, and cattle hides.

U.S. sales reached a record \$535 million, quadruple the 1981 value. Prospects of surpassing the 1984 peak depend upon Iraq's petroleum revenues, which should increase in 1987. In 1985, Iraq's petroleum sales to the United States nearly quadrupled, surpassing \$400 million, and remained at a high level in 1986, providing dollars for payments on GSM 102 credit, the key opener in our trade with Iraq.

Iraq has been the top market for U.S. rice over the last 3 years, although recent shipments were slightly below the 1984 peak of 448,000 tons. Iraq is a potential market for many other U.S. products, including canned foods, cigarettes, soap, peanuts, honey, beef, and cheese. Some of these commodities are in the pipeline, but judging by shortages in the country, larger imports are needed. Iraq is also interested in purchasing U.S. beef through credit and concessional terms.

EC farm sales to Iraq peaked in 1982 at \$577 million, but the 1982-86 average is about \$350 million. Livestock products accounted for most of the trade, especially dairy products, beef, and canned meat.

#### *Algeria: A Large EC Market*

The Algerian food market is large, and the EC share has been about one-third. Rising demand, improving diets, and close ties with France have prevented the type of decline seen in sales to Iran, Iraq, and Libya. EC wheat exports were more than 800,000 tons annually during 1983-85, when the annual value exceeded \$100 million. Wheat flour shipments fluctuated somewhat after the 1982 peak and increased a third in 1985 to 655,869 tons for \$147 million. The loss of the Algerian market for cheese and butter was partly offset by greater beef and milk sales.

One of the fastest growing U.S. markets in 1986 was Algeria, with an increase of 26 percent to \$287 million. Most of the gain is attributable to increased wheat sales, which doubled to 1.7 million tons from 1985. The EEP, in conjunction with GSM credit, is directly responsible for the sales increase. Algeria has long been a regular purchaser of U.S. and Canadian durum wheat for HRW and SRW. It has split its purchases among France, Canada, and the United States, with a bias toward French wheat.

The U.S. export offensive in Algeria began in 1985 with a 1-million ton nondurum wheat EEP, which effectively displaced French COFACE wheat. The EEP has allowed Algeria to purchase wheat at major discounts, often below \$85 per ton. U.S. exporters are given an in-kind "bonus" or subsidy worth as much as \$23 per ton to compensate for the difference between their f.o.b. costs and the Algerian contract price. Algeria's tight foreign exchange situation is likely to witness a greater response to price and credit.

The United States had a mixed showing in the Algerian feed market in 1986. The volume of corn shipments fell by 18 percent to 430,388 tons, and value slid by 41 percent to \$35 million. Corn sales had been growing steadily, primarily because of efforts to boost the livestock and poultry sectors. The U.S. Feedgrains Council and the U.S. Soybean Association are active in promoting sales to Algiers. In October 1986, \$70 million of GSM-102 credit for the purchase of corn was announced. This credit, if used, would amount to at least 700,000 tons of corn in 1987. Algeria purchased a record 106,766 tons of U.S. soymeal for \$25 million as imports from Spain and Brazil dwindled.

The EC likely will remain ahead of the United States for agricultural exports to the region in 1987. A rebound for both the United States and the EC may occur in the coming year as they fill some gaps left by smaller deliveries from Eastern Europe, Brazil, Sub-Saharan Africa, and Turkey.

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# FOOD IMPORT DEMAND IN NORTH AFRICA AND THE MIDDLE EAST

By

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Agricultural Economists

**ABSTRACT:** As a result of lower primary export prices and slower growth in or declining credit flows, the future behavior of imports—especially food imports—by North African and Middle Eastern countries becomes less certain. This paper examines the impact of changes in export earnings and credit on the import capacity of selected countries in the region, and evaluates implications for food imports. Ten countries were chosen: Iran, Iraq, Israel, Jordan, Saudi Arabia, Syria, Algeria, Egypt, Morocco, and Tunisia. They were selected primarily because of the size of their economies and the availability of data.

**KEYWORDS:** Middle East and North Africa, oil prices, credit, export earnings, food imports

The countries examined can be classified into two subgroups: oil-exporting countries, including Algeria, Egypt, Iran, Iraq, Saudi Arabia, Syria, and Tunisia; and nonoil exporting or middle-income countries, including Israel, Jordan, and Morocco. In all countries increases in export earnings and/or credit flow led to increased imports during the 1970's. Since then, a decline in foreign exchange availability forced a cutback in total imports. To discourage consumption, Governments reduced subsidies on most nonfood items. More painful adjustments—such as reductions in food consumption and imports—are coming more slowly.

Historical and recent growth in export earnings, debt, and import value

| Country           | Export earnings |         | Import value |         | Outstanding debt |         |
|-------------------|-----------------|---------|--------------|---------|------------------|---------|
|                   | 1966-80         | 1981-85 | 1966-80      | 1981-85 | 1966-80          | 1981-85 |
| Percent per year  |                 |         |              |         |                  |         |
| Oil exporters:    |                 |         |              |         |                  |         |
| Algeria           | 21.0            | -1.8    | 20.9         | -3.3    | 30.9             | -4.8    |
| Egypt             | 12.4            | 0.4     | 16.2         | 6.3     | 18.6             | 12.9    |
| Iran              | 20.4            | 1.6     | 19.8         | 1.2     | 21.7             | --      |
| Iraq              | 25.4            | 1.4     | 25.6         | -17.2   | 12.5             | 23.9    |
| Saudi Arabia      | 31.1            | -28.8   | 30.1         | -1.0    | NA               | --      |
| Syria             | 18.8            | -2.7    | 20.5         | -4.0    | 27.0             | NA      |
| Tunisia           | 18.9            | -4.9    | 19.0         | 5.0     | 16.9             | 4.1     |
| Nonoil exporters: |                 |         |              |         |                  |         |
| Israel            | 18.1            | 2.7     | 17.0         | -0.8    | 17.5             | 8.9     |
| Jordan            | 21.2            | 2.7     | 20.5         | 0.1     | 25.1             | 7.4     |
| Morocco           | 12.5            | -1.2    | 15.9         | -2.3    | 21.2             | -1.7    |

NA = not available  
-- not applicable, no debt

## Reasons for Growth in Food Imports

From 1966-80, import value growth averaged more than 20 percent per year. Commercial food import growth averaged 10 percent annually during the same time period. (Because cereals contribute about half of the diet in these countries, they are used as a proxy for food throughout this paper.) After 1980, the story begins to change. Total imports declined almost 2 percent annually during 1981-85, while food imports continued to increase but at a slower rate than historical levels (4 percent annually).

Four primary reasons account for this trend:

1. *Variations in Export Earnings*—From 1966-80, export earnings growth in oil-exporting countries ranged from 12 percent in Egypt to 31 percent per year in Saudi Arabia. The higher earnings increased import capacity. Ambitious investment programs, financed particularly through borrowing, were undertaken with the expectation that oil-price increases would continue. Since 1980, the earnings pattern has changed because: a) high oil prices brought more suppliers into the

market, b) these high prices also led to a successful conservation effort in industrialized countries that cut oil consumption significantly, and c) the world recession in the late 1970's and early 1980's reduced demand for energy. As a result, import value declined in four of the seven oil-exporting countries.

In terms of earnings growth, nonoil countries closely resemble the oil exporters--high growth between 1966-80 and low growth or decline since 1981. Import patterns are also similar. Imports increased 18 percent annually in response to annual export growth of 17 percent in 1966-80. Since then, imports declined (1 percent annually) following the slowing of earnings growth (1 percent annually).

2. *Growth in Credit*--A major development during the 1970's was increased credit availability. In the mid-1970's, ready surplus capital in OPEC countries encouraged international lending at low real interest rates. Between 1966-80, outstanding debt in these countries, except Saudi Arabia, grew at an average rate of more than 21 percent per year. However, with the increase in interest rates in the late 1970's and early 1980's, the recession in industrial countries, and reduced export earnings, these countries' economies came under intense financial pressure. Debt accumulation raised the debt-service level relative to the size of these economies. In recent years, debt-service ratios (the level of debt servicing as a percent of export earnings) have ranged from more than 20 percent to almost 60 percent, making borrowing more difficult.

Since 1981, credit availability has slowed considerably relative to the 1970's. Even in politically important countries, such as Israel and Egypt, credit flow has increased approximately 10 percent annually (compared with almost 20 percent during the 1970's). Reduced credit availability and lower export earnings weakened these economies and slowed output growth. Therefore, import dependency became more significant in almost all of these countries.

3. *Government Policies*--Increasing food imports was an effective way Governments

could demonstrate economic prosperity and improve their citizens' diets. Less cereal and more meat were consumed. Feed grains, however, had to be imported as livestock output expanded. During the 1970's, to avoid political disturbances, prices of staple foods were kept constant or increased slightly through costly subsidies. This shifted consumption toward subsidized foods and increased imports. Import dependency--measured as imports as a percent of total availability--increased in eight of the countries. The Iran-Iraq war limited resources available to agriculture and required imports to satisfy demand. In Algeria, diets changed, and feed imports were needed for livestock development. In Egypt, subsidies encouraged wheat consumption and in recent years, imports composed almost 90 percent of total availability.

4. *Slow Production Growth*--Lagging food production increases dependence on food imports. The major problem facing most countries is low agricultural productivity. Despite recent injections of capital, agriculture's contribution to the GDP has declined. It had ranged from 3 percent in Saudi Arabia to 20 percent in Egypt and Syria in 1984. Agricultural productivity is especially low when compared with the size of the agricultural labor force. Rural population as a percent of total population ranged from 10 percent in Israel to 57 percent in Morocco in 1984 (according to the World Bank).

In most countries of the region, agricultural production faces a combination of physical and policy constraints. The climate is arid, rainfall is erratic and inadequate, and irrigated area is limited, except in Egypt where most cultivated area is irrigated. Therefore, major increases in food production must come from increased yields.

Inefficient food production has forced most of these countries to become increasingly dependent on food imports. Between 1970 and 1985, food self-sufficiency decreased from 70 to 50 percent in oil-exporting countries and from 43 to 30 percent in nonoil-exporting countries. Food production activity in the two groups was

| Country           | 1966-80 growth in  |            | 1981-85 growth in  |            | Self-sufficiency ratio |      |      |      |
|-------------------|--------------------|------------|--------------------|------------|------------------------|------|------|------|
|                   | Commercial Imports | Production | Commercial Imports | Production | 1970                   | 1975 | 1980 | 1985 |
| Percent per year  |                    |            |                    |            | Percent                |      |      |      |
| Oil exporters:    |                    |            |                    |            |                        |      |      |      |
| Algeria           | 13.1               | 1.5        | 7.6                | 8.3        | 77                     | 79   | 48   | 45   |
| Egypt             | 2.7                | 1.5        | 9.2                | 2.2        | 79                     | 59   | 49   | 42   |
| Iran              | 8.3                | 1.8        | 1.3                | 0.1        | 90                     | 79   | 65   | 59   |
| Iraq              | 20.8               | -2.2       | 9.8                | -2.3       | 89                     | 52   | 44   | 28   |
| Saudi Arabia      | 14.1               | -3.6       | 8.9                | 48.5       | 46                     | 25   | 7    | 28   |
| Syria             | 8.7                | 6.7        | 7.0                | -5.9       | 54                     | 97   | 107  | 66   |
| Tunisia           | 6.5                | 7.1        | -7.4               | 12.9       | 56                     | 78   | 54   | 85   |
| Nonoil exporters: |                    |            |                    |            |                        |      |      |      |
| Israel            | 4.8                | -0.1       | 1.2                | -5.8       | 12                     | 16   | 15   | 9    |
| Jordan            | 8.6                | -3.4       | 4.1                | 2.1        | 33                     | 16   | 33   | 15   |
| Morocco           | 6.6                | 0.4        | -1.6               | 17.2       | 83                     | 77   | 67   | 65   |

similar, except for successes in Saudi Arabia as a result of tremendous investment in agriculture. Food production, on average, increased only slightly faster than population growth.

### Determinants of Import Growth

Against this background of financial and food policies, import variations were studied in relation to several factors. Total import capacity was assumed to be a function of export earnings and net credit flow over the period 1966-85. Food imports were assumed to be a function of import capacity, world food price, domestic food output, and food aid. For Iran and Saudi Arabia, export earnings were used as the only determinant of import capacity in the food import equation because these countries do not receive credit. The key findings were:

- o Both export earnings and credit are positively related to import capacity. For example, when these variables are increased, import value rises. On the other hand, when export earnings and credits are reduced, import value falls. Import responsiveness relative to the impact of changes in credit flow on imports ranged from 0.78 in Egypt to 0.16 in Israel. In the oil-exporting countries import response to credit change was higher than in the nonoil-exporting countries, 0.49 versus 0.36, respectively. The response of import values to changes in export earnings ranged from

Import demand estimations

| Country                  | Food import equation |              |              |          | Import value equation |        |
|--------------------------|----------------------|--------------|--------------|----------|-----------------------|--------|
|                          | Pro-duction          | Import value | Cereal price | Food aid | Export Earnings       | Credit |
| <b>Oil exporters:</b>    |                      |              |              |          |                       |        |
| Algeria                  | -0.49*               | 0.68*        | -0.21        | NA       | 0.59*                 | 0.46*  |
| Egypt                    | -1.48                | 0.46*        | -0.24        | 0.02     | 0.01                  | 0.78*  |
| Iran                     | -1.13                | 1.22*        | -1.11        | NA       | 1.00*                 | NA     |
| Iraq                     | -0.96*               | 0.77*        | -0.64        | NA       | 0.91*                 | 0.31*  |
| Saudi Arabia             | 0.71*                | 0.49*        | -0.08        | NA       | 1.02*                 | NA     |
| Syria                    | -0.34                | 0.33*        | -1.33*       | NA       | 0.73*                 | 0.30*  |
| Tunisia                  | -3.99*               | 1.24*        | NA           | -1.13    | 0.86*                 | 0.59*  |
| <b>Nonoil exporters:</b> |                      |              |              |          |                       |        |
| Israel                   | -0.19*               | 0.29*        | 0.02         | NA       | 0.70*                 | 0.16   |
| Jordan                   | -0.09                | 0.38*        | -0.58*       | NA       | 0.53*                 | 0.38*  |
| Morocco                  | -1.74*               | 1.23*        | NA           | -0.22    | 1.09*                 | 0.53*  |

NA=not applicable

\* Significant at the 90-percent level.

1.09 in Morocco to 0.01 in Egypt. Egypt relies on service remittances from workers abroad, Suez Canal revenues, and tourism, none of which are included in export earnings. This may explain the low response of imports to real export earnings. Import responses to export earnings were significant at the 90-percent level for all countries except Egypt.

- o The import response with respect to food production was negative, thus representing substitution between imports and production. The exception was Saudi Arabia, with its tremendous growth in food production over the last 5 years.
- o Import capacity was the most significant variable in the context of food-import levels. This implies that the two financial

variables--export earnings and credit--are important determinants of food imports.

- o The relationship between world cereal prices and quantity of food imports was negative and largely insignificant. In Morocco and Tunisia, there was a strong positive relationship, and the price variable was therefore omitted. This price variable had the poorest relationship with food imports for many reasons. Most importantly, imports have become a significant contributor to the overall levels of availability. With government policies of stable consumer prices, import decisions have been made irrespective of price variations. Also, the world price is not a true indicator of what countries actually pay, and with increasing incomes and population growth rates, these countries have become targets for the major grain exporters. Nonprice competition has become so intense that prices paid by these countries are significantly different from world prices.
- o The food aid variable was only used in equations for Egypt, Morocco, and Tunisia. It was not significant in any country, and the sign varied from positive to negative, indicating that decisions on food imports are made regardless of food aid received, or food aid does not vary enough annually to explain variations in quantities of food imports.

### *Food Imports Under Alternative Conditions*

Reviewing historical import levels and their determinants raises the question of the future direction of food imports. The financial condition of these countries will have a substantial impact on their import capacities, depending upon the trend in oil and other commodity prices, credit regulations of international financial institutions, and the speed at which these countries adopt policy adjustments to reduce subsidies and control growth in demand.

Alternative scenarios were developed to test and evaluate the impact of financial changes on imports. This was determined by simulating the effects of several developments, projected for 10 years hence. They are: 1) continuation of the historical trend, 2) an annual 10-percent increase in export earnings, with no change in credit, and 3) a 10-percent annual increase in credit, with no change in export earnings.

In the first scenario, total commercial food imports by oil-exporting countries are projected to increase by 23 percent, and total import value by 40 percent. The increase in food imports will be dramatic in Iraq, which will import more than 100 percent of its 1985 imports. In Iraq, historical food production growth has been slow, and during the last 7

Forecasts of imports for 1995, total and commercial food

| Country           | Trend scenario |              | Increase in export earnings |              | Increase in credit |              |
|-------------------|----------------|--------------|-----------------------------|--------------|--------------------|--------------|
|                   | Import value   | Food imports | Import value                | Food imports | Import value       | Food imports |
| 1985=100          |                |              |                             |              |                    |              |
| Oil exporters:    |                |              |                             |              |                    |              |
| Algeria           | 72             | 74           | 180                         | 154          | 158                | 140          |
| Egypt             | 274            | 180          | 101                         | 100          | 218                | 154          |
| Iran              | 117            | 121          | 272                         | 310          | NA                 | NA           |
| Iraq              | 238            | 206          | 248                         | 214          | 136                | 128          |
| Saudi             | 111            | 105          | 277                         | 187          | NA                 | NA           |
| Syria             | 82             | 94           | 208                         | 135          | 135                | 112          |
| Tunisia           | 84             | 80           | 236                         | 269          | 180                | 200          |
| Nonoil exporters: |                |              |                             |              |                    |              |
| Israel            | 139            | 111          | 201                         | 129          | 117                | 105          |
| Jordan            | 153            | 120          | 170                         | 127          | 146                | 118          |
| Morocco           | 80             | 76           | 297                         | 343          | 170                | 186          |

NA = not applicable

years production has declined sharply because of the ongoing war, which implies more reliance on imports to satisfy demand. For the most part, imports in 1995 will nearly match their 1985 levels for the remaining oil-exporting countries. Therefore, imports on a per-capita basis are likely to decline considering a 3-percent population growth rate. When coupling this finding with modest growth in food production (with the exception of Saudi Arabia) in the last 5 years, future consumption is likely to stagnate.

In the nonoil-exporting countries, food imports and total import value are expected to grow by 2 and 24 percent, respectively. This means that food imports will remain constant on a per-capita basis. If food production trends continue (per-capita production increased on average), per-capita consumption levels should increase gradually.

As expected, increases in export earnings (with no change in credit) resulted in increased commercial food imports and import values. In the oil-exporting countries, a 10-percent annual increase in export earnings will increase food imports by almost 100 percent and import value by 117 percent by 1995. The nonoil exporters showed an even higher response to the increase in earnings—142 percent and 123 percent for food imports and total import value, respectively.

The credit increase did not have as great a response as the export earnings increase. In fact, in the nonoil-exporting countries, import value was lower in this scenario than in the trend scenario. This is due to the dynamic nature of their export sectors. Therefore, when the 10-percent credit increase was coupled with stagnant export earnings, the import-value growth fell short of growth experienced under the trend scenario. In the oil-exporting countries, the increase in credit

resulted in 47 and 65 percent growth in food imports and import value, respectively. This is slightly higher than results of the trend scenario.

The above scenarios are hypothetical and subject to fluctuations of financial variables. With current disagreements among OPEC members and increased suppliers, it is highly unlikely that oil prices will rebound to the level of the 1970's. Therefore, earnings are not expected to grow significantly unless these countries can diversify and export additional commodities. In Egypt and Morocco, a reduction in remittances and official transfers from oil-producing countries will result in additional financial pressure. Conversely, the oil-importing countries will benefit from foreign exchange saved as a result of a lower import price. Positive relative price changes, nonoil to oil, and lower interest rates could help cover the low prevailing commodity prices and provide opportunities for economic recovery. However, if oil prices stabilize or increase in the medium-term, the vulnerability of oil-importing countries is expected to grow.

The future of credit is even more uncertain. Without increasing revenues as collateral and because of the large debt service burdens, the large donors may be unwilling to increase credit. However, competition among food exporters will continue so long as prices decline. If these countries are able to import food at lower prices, more foreign exchange will then become available to import nonfood items. These nonfood imports, raw materials, and capital goods are essential inputs needed to stimulate growth. However, if credit continues its recent trend, then governments will be faced with choosing between politically important food imports or economically important nonfood imports.

# EC-U.S. SUBSIDY WAR RAGES IN NORTH AFRICA

By

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**ABSTRACT:** A trade war over wheat is being waged in North Africa. The United States and the EC are retaliating against each other's price and credit subsidies with even greater subsidies. As the war has escalated, the cost of importing wheat and wheat flour has declined steadily, while the cost of subsidizing exports has risen. The present wheat conflict threatens to spill over into the feed export market. The article characterizes the subsidy war as a Bertrand duopoly game and employs this model to deduce the likely course of events and possible forms of conflict resolution.

**KEYWORDS:** Export policy, subsidies, credit, restitution payments, EC, North Africa, duopoly, game theory, EEP, GSM, agricultural policy interdependence

"Interdependence" has been appearing more and more frequently in speeches, journal articles, and books on the world economy, economic policy, and international trade. Actions taken by the Federal Reserve Board, for example, have an immediate worldwide impact on interest rates and exchange rates, and through these markets force monetary and fiscal authorities in Japan, Europe, and Brazil to adjust their policies. Similarly, actions or even speeches by Japanese, European, or Brazilian authorities can affect U.S. bond and commodity prices.

The G-7 and G-5 economic summits testify to a growing recognition that effects of monetary and fiscal policies in the major market economies do not stop at the border, but generate considerable external effects. Complete policy coordination has yet to occur, as no government wishes to subject its economic policy to foreign veto, yet threat of retaliation, as well as liberalization and integration of world capital markets, has limited the autonomy of economic policymakers. The external effects of domestic policies can no longer be ignored, and more of their costs will have to be borne domestically.<sup>1</sup>

1. On the issue of policy interdependence and coordination, see George A. Kahn, "International Policy Coordination in an Interdependent World," *Economic Review* of the Federal Reserve Bank of Kansas City, March 1987, Vol. 72, No. 3, pp. 14-32, and the references therein.

The external effects of agricultural policies are the source of considerable acrimony between the United States and the European Community. Agricultural policies in developed industrial economies are generally formulated to transfer income to rural areas and insulate farmers from variations in world commodity prices. U.S. and EC price supports have tended to encourage overproduction of commodities by setting domestic support prices above the world price level. The surplus commodities are usually purchased and stored by governments, and exported or destroyed at an economic loss.

In the 1950's and 1960's surplus disposal through programs such as PL480 was a viable option for the United States, the world's primary wheat exporter. Canada was our principal rival in the wheat market, and its market share and traditional markets were generally respected by calculating "usual marketing requirements" for countries programmed for PL 480 wheat. The implicit U.S.-Canadian market-sharing arrangement was disturbed in the late 1960's with Australia's entry into the wheat market. The emergence of an implicit three-party equilibrium was upset by the commodity price boom of 1972-1974 and the growth of EC wheat exports in the late 1970's.

The world wheat market since the late 1970's has been characterized by heavy Government intervention by exporters trying to increase or simply preserve what they regard as "traditional" market shares. The

United States and the EC have employed export subsidies in the struggle for market shares in third country markets, and nowhere has the combat been fiercer than in the North African wheat market.<sup>2</sup>

It is beyond the scope of this article to evaluate U.S. and EC claims and counterclaims.<sup>3</sup> However, it can be pointed out that both guarantee domestic producer prices above the world price, both produce surpluses of wheat and other commodities, both employ price and credit subsidies to win importers' tenders and, most importantly, both believe they are the injured party. This belief has led policymakers on both sides to adopt hardline policies and to swear not to be undersold. The adoption of symmetric and mutually exclusive strategies makes the current price war a textbook example of the Bertrand duopoly game.

Bertrand (1883) pioneered the analysis of a market share struggle between two producers employing price as a competitive weapon. Bertrand assumes that both producers have enough capacity or stock to supply the market (the United States and the EC have ample stocks), and that producers or exporters bid in turn. In the opening round, each exporter tries to sell at a price above marginal cost so as to make a profit; the lowest price gets the sale. In the subsequent rounds, the loser cuts the price below the

previous sale; ultimately prices are driven down to marginal cost.

There are three generic solutions to the Bertrand game:

- o If one producer has a cost advantage, it can drive its rival out of the market, but its price cannot exceed its rival's cost without encouraging the rival to reenter the market.
- o If the producers share identical cost structures, as Bertrand assumed, they share the market but at a competitive (price equals marginal cost) price.
- o If the producers can agree to share the market at a competitive price, they may be able to share it at a monopoly price by forming a cartel.<sup>4</sup>

One important difference between the rivals of the Bertrand duopoly game and the real players is that the United States and the EC are not profit-maximizing firms but Governments that can tax one sector of the state to subsidize another. Indeed, export revenue from recent wheat sales is only a small fraction of these Governments' cost of procurement and storage. Consequently, there is no "marginal cost" to discipline product pricing, and there is nothing to prevent the price from being driven to zero or below.

Let's examine the evidence to determine if the United States and the EC are behaving in the manner described by Bertrand. The best set of observations of behavior in this market are announcements of subsidized sales by USDA's Office of the General Sales Manager (OGSM). OGSM had used several Government-guaranteed export credit

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2. For the development of the structure and conduct of the world wheat market, see A.F. McCalla (1966), "A Duopoly Model of World Wheat Pricing," *Journal of Farm Economics* 48:711-27; C.M. Alaouze, A.S. Watson, and N.S. Sturgess (1978), "Oligopoly Pricing in the World Wheat Market," *American Journal of Agricultural Economics* 60:173-85; and G.R. Gardner and D.W. Skully (1986), "The Conduct of Wheat Marketing in North Africa," Staff Report No. AGES860808, IED/ERS/USDA.

3. For a concise and balanced survey of these issues, see D.U. Vogt and J. Womach (1986), "Tensions in United States-European Community Agricultural Trade," Congressional Research Service Report No 86-112 ENR. Although now somewhat dated, D.F. Hadwiger (1970), *Federal Wheat Commodity Programs* (Iowa State University Press), is a classic reference for U.S. wheat policies.

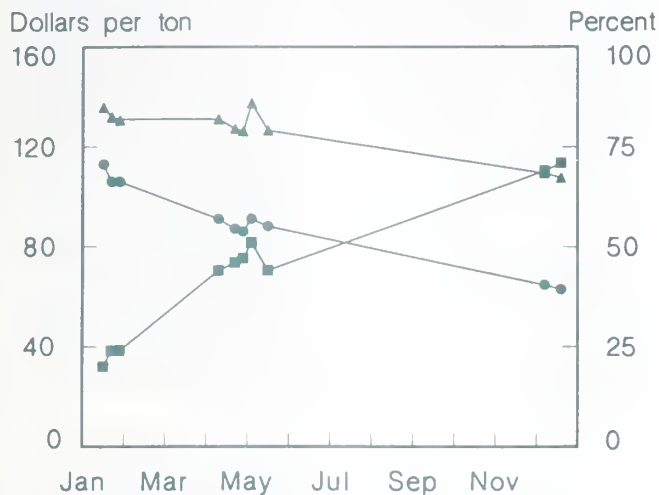
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4. J. Bertrand (1883), "Review of Cournot," *Journal des Savants* 499-508, is the seminal article. Recent contributions relevant to this discussion are: L. Cheng (1985), "Comparing Bertrand and Cournot Equilibria: A Geometric Approach", *Rand Journal of Economics* 16 (1) Spring: 146-52; R. Deneckere and C. Davidson (1985), "Incentives to Form Coalitions with Bertrand Competition," *Rand Journal of Economics* 16 (4) Winter: 473-86; and several articles in the "Strategic Behavior and Competition" symposium issue of the *Journal of Economic Theory* (1986), 39(1) June.

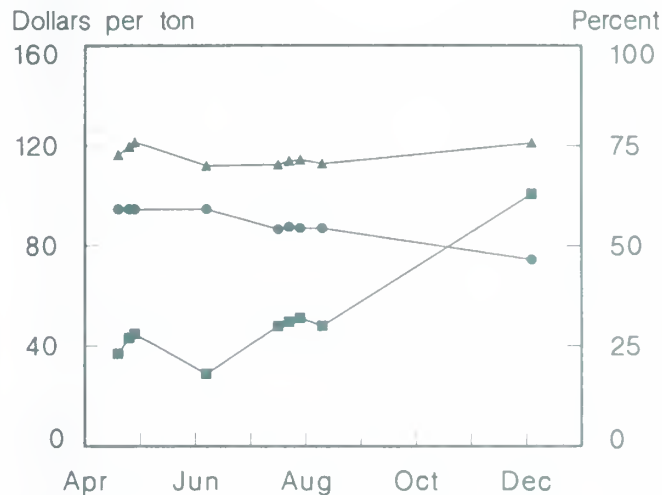
## Wheat Imports Under EEP-GSM, 1986

● Export price ▲ Market price ■ Subsidy rate

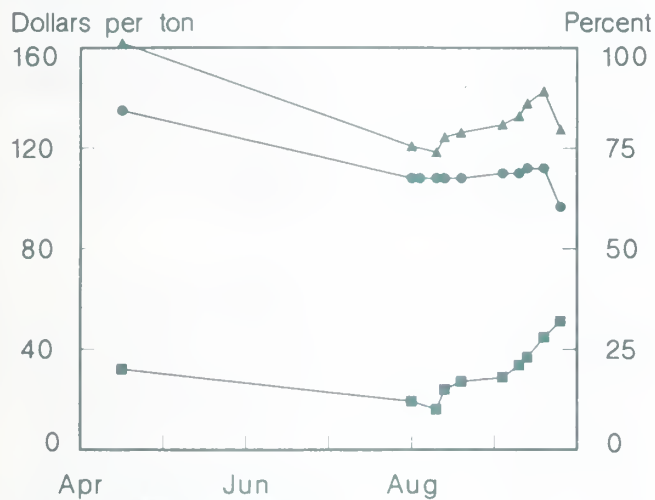
Morocco



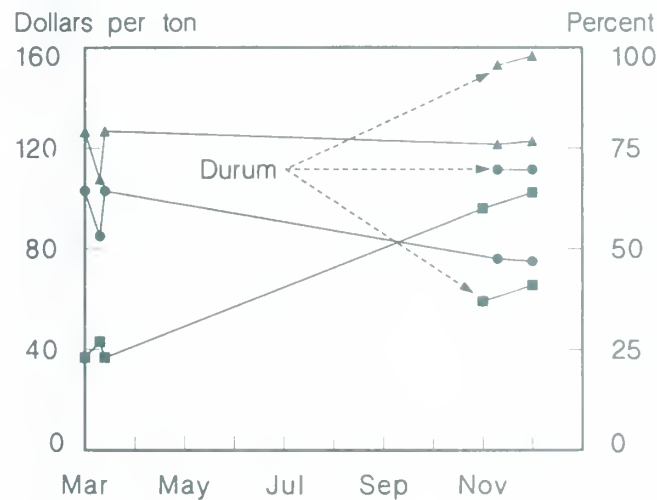
Egypt



Tunisia (durum)



Algeria



• Subsidy rate =  $\frac{\text{export bonus/metric ton}}{\text{export price/metric ton}}$

programs to help maintain U.S. market shares in North Africa in the early 1980's. The Blended Credit program was particularly successful but was abandoned in 1985 because of political pressure by U.S. maritime interests.

In response, the USDA initiated the Export Enhancement Program (EEP) in May 1985. Under the EEP, a targeted export market is allocated a quantity of a targeted commodity—for example, 1 million tons of bread wheat to Algeria for the 1986 fiscal year. The EEP relies on the rivalrous behavior of private grain exporters to place a winning

bid to an importer's tender. (Only exporters in business for at least 3 years are eligible to bid on tenders under the EEP—no new companies are allowed to benefit.) The winning bidders then apply to the OGSM for an in-kind subsidy to cover the difference between the grain's market cost and the bid price. The in-kind subsidy consists of a transfer of rights to surplus grain in government storage.

From the EEP's inception until January 1987, OGSM announced the sale amount, the winning bidder, the export price, and the imputed value of the in-kind subsidy. In January, OGSM ceased announcing the sales

| Date           | Tons    | Variety | Export price<br>f.o.b | CCC in<br>kind<br>subsidy | Subsidy as<br>proportion<br>of export<br>price | Market<br>price |
|----------------|---------|---------|-----------------------|---------------------------|--|-----------------|
| <b>Morocco</b> |         |         |                       |                           |  |                 |
| 21-Jan         | 200,000 | HRW     | 113.00                | 22.81                     | 20   | 135.81          |
| 21-Jan         | 60,000  | HRW     | 113.50                | 22.81                     | 20   | 136.31          |
| 23-Jan         | 120,000 | HRW     | 106.50                | 25.38                     | 24   | 131.88          |
| 23-Jan         | 80,000  | SRW     | 106.00                | 24.95                     | 24   | 130.95          |
| 30-Apr         | 20,000  | HRW     | 91.00                 | 40.10                     | 44   | 131.10          |
| 30-Apr         | 20,000  | HRW     | 87.00                 | 40.10                     | 46   | 127.10          |
| 30-Apr         | 20,000  | HRW     | 86.00                 | 40.10                     | 47   | 129.10          |
| 02-May         | 20,000  | HRW     | 91.00                 | 46.39                     | 51   | 137.39          |
| 14-May         | 30,000  | SRW     | 88.00                 | 38.40                     | 44   | 126.40          |
| 09-Dec         | 100,000 | HRW     | 64.75                 | 44.60                     | 69   | 109.35          |
| 09-Dec         | 100,000 | HRW     | 63.00                 | 44.60                     | 71   | 107.60          |
| 09-Dec         | 100,000 | HRW     | 63.00                 | 43.69                     | 69   | 106.69          |

| Date           | Tons    | Variety | Import price<br>c.i.f. | CCC in<br>kind<br>subsidy | Subsidy as<br>proportion<br>of export<br>price | Market<br>price |
|----------------|---------|---------|------------------------|---------------------------|--|-----------------|
| <b>Algeria</b> |         |         |                        |                           |  |                 |
| 03-Mar         | 18,000  | HRW     | 103.00                 | 23.58                     | 23   | 126.58          |
| 03-Mar         | 261,000 | SRW     | 100.00                 | 22.58                     | 23   | 122.58          |
| 03-Mar         | 24,000  | SRW     | 85.00                  | 22.58                     | 27   | 107.58          |
| 06-Mar         | 53,000  | HRW     | 103.00                 | 23.79                     | 23   | 126.79          |
| 07-Nov         | 249,000 | HRW     | 76.00                  | 45.53                     | 64   | 121.53          |
| 10-Nov         | 60,000  | Durum   | 111.50                 | 41.57                     | 37   | 153.07          |
| 01-Dec         | 105,000 | HRW     | 75.00                  | 47.77                     | 64   | 122.77          |
| 03-Dec         | 15,000  | Durum   | 111.50                 | 44.95                     | 40   | 156.45          |
| 03-Dec         | 15,000  | Durum   | 111.50                 | 44.95                     | 40   | 156.45          |
| 05-Dec         | 135,000 | Durum   | 111.50                 | 45.23                     | 41   | 156.73          |
| 09-Dec         | 15,000  | Durum   | 111.50                 | 45.23                     | 41   | 156.73          |

|                |        |       |        |       |    |        |
|----------------|--------|-------|--------|-------|----|--------|
| <b>Tunisia</b> |        |       |        |       |    |        |
| 19-Apr         | 50,000 | Durum | 135.00 | 26.91 | 20 | 161.91 |
| 01-Aug         | 50,000 | Durum | 108.00 | 12.81 | 12 | 120.81 |
| 01-Aug         | 75,000 | Durum | 108.00 | 10.40 | 10 | 118.40 |
| 12-Aug         | 50,000 | Durum | 108.00 | 16.46 | 15 | 124.46 |
| 14-Aug         | 25,000 | Durum | 108.00 | 18.28 | 17 | 126.28 |
| 27-Aug         | 25,000 | Durum | 110.00 | 19.48 | 18 | 129.48 |
| 04-Sep         | 25,000 | Durum | 110.00 | 22.87 | 21 | 132.87 |
| 17-Sep         | 25,000 | Durum | 112.50 | 25.50 | 23 | 138.00 |
| 25-Sep         | 50,000 | Durum | 112.00 | 30.80 | 28 | 142.80 |
| 26-Sep         | 50,000 | Durum | 96.62  | 30.92 | 32 | 127.54 |
| 26-Sep         | 50,000 | SRW   | 96.62  | 30.92 | 32 | 127.54 |
| 29-Sep         | 50,000 | SRW   | 81.75  | 35.83 | 44 | 117.58 |

|              |         |            |       |       |    |        |
|--------------|---------|------------|-------|-------|----|--------|
| <b>Egypt</b> |         |            |       |       |    |        |
| 22-Apr       | 115,000 | SRW        | 94.50 | 21.88 | 23 | 116.38 |
| 24-Apr       | 30,000  | SRW        | 94.50 | 25.13 | 27 | 119.63 |
| 25-Apr       | 52,000  | SRW        | 94.50 | 26.87 | 28 | 121.37 |
| 02-Jun       | 315,000 | SRW        | 94.50 | 17.41 | 18 | 111.91 |
| 14-Jul       | 67,000  | SRW        | 86.50 | 25.86 | 30 | 112.36 |
| 15-Jul       | 160,000 | SRW        | 87.00 | 26.90 | 31 | 113.90 |
| 16-Jul       | 25,000  | SRW        | 87.00 | 27.41 | 32 | 114.41 |
| 08-Aug       | 252,000 | SRW        | 87.00 | 25.18 | 29 | 112.18 |
| 08-Aug       | 20,000  | SRW        | 87.00 | 25.80 | 30 | 112.80 |
| 11-Dec       | 185,000 | soft white | 74.50 | 46.71 | 63 | 121.21 |
| 11-Dec       | 23,000  | soft white | 74.50 | 46.71 | 63 | 121.21 |
| 12-Dec       | 23,000  | soft white | 74.50 | 46.71 | 63 | 121.21 |
| 16-Dec       | 23,000  | soft white | 74.50 | 46.71 | 63 | 121.21 |
| 17-Dec       | 23,000  | soft white | 74.50 | 46.71 | 63 | 121.21 |
| 19-Dec       | 23,000  | soft white | 74.50 | 46.71 | 63 | 121.21 |

price and the subsidy value. The graphs show EEP wheat sales to North Africa, country by country. (Libya, for political reasons, has not benefited from the EEP.) Each graph shows the export price (the price paid by the importer to the private grain company), the market price (equal to the price paid by the importer plus the per-ton value of the in-kind subsidy paid by USDA to the grain company), and the "subsidy rate" or the per-ton value of

the subsidy divided by the unit value of the export price.

The Bertrand model predicts that the "we will not be undersold" strategies adopted by the United States and the EC will result in a steadily declining export price, an increasing subsidy value and, therefore, an increasing subsidy rate. Consistent observations of EC sales are unavailable—disguising sales prices from rivals is an advantageous tactic in oligopolistic markets. However, because the OGSM data show when the United States undersold the EC, and this price has steadily declined, it stands to reason that EC export prices have also declined. The scattered evidence available confirms this.

As noted, there is no downside limit to prices in a price war between two Governments with large tax bases and strong interest groups. Neither the United States nor the EC has shown signs of backing down, and subsidized retaliation is now occurring in the market for barley. Moreover, France is providing export restitutions (subsidies) for corn sales to Tunisia and Morocco, regarded by the United States as its market.

Price is not the only instrument of competition being employed. Credit also plays an important role. Much of the wheat exported to North Africa has been sold under one of a variety of General Sales Manager credit programs. Under these programs the U.S. Government guarantees payment of the loan negotiated between the importing country and a commercial bank. U.S. Government guarantees significantly reduce the lender's default risk, thereby allowing the borrowing Government to borrow at a rate lower than it would face on the free (Eurodollar) market. Similar credit is available for EC exports, France's COFACE being the most prominent.

During 1986, there has been Bertrand-style "price cutting" in the terms of credit. Previously, the GSM and COFACE credits were for repayment in less than 3 years. Rivalry between the two credit guarantors has pushed the terms out to 7 and then 10 years. Generally, the longer the maturity of a subsidized loan, the greater the subsidy's net present value.

Analysts and commentators on U.S. and EC agricultural policies have too often proclaimed that these policies cannot possibly continue only to discover that they have persisted. The present subsidy war, for example, may well expand to more commodities and more targeted markets. The motivation is to force the rival to the bargaining table and win concessions. Both the United States and the EC have deep pockets and can sustain a long siege. Ultimately—this may mean several years—both parties will have to stop bleeding revenue and coordinate some mechanism whereby each can obtain domestic agricultural goals without exporting the costs to the other.

Although the United States and the EC behave like duopolists in North Africa, other exporters have lost market shares in the crossfire, namely Canada, Australia, and

Argentina. Australia, in particular, has been at the forefront in an articulate and rigorous condemnation of both U.S. and EC agricultural export policies.<sup>5</sup> The actions of these third parties may help hasten resolution of the conflict. In the meantime, the urban consumers of Morocco, Algeria, Tunisia, and Egypt are the real winners.

5. An excellent example is Geoff Miller, *The Political Economy of International Agricultural Policy Reform*, Australian Government Publishing Service (Canberra) 1986, which compares the grain, sugar, dairy, and beef programs of Japan, the EC, and the United States and documents their impact on the international market. The *1986 World Development Report* of the World Bank also addresses some of these issues.

U.S. total trade with the Middle East and North Africa,  
by value, 1984-1986

| Country            | Exports |        |        | Imports |       |        |
|--------------------|---------|--------|--------|---------|-------|--------|
|                    | 1984    | 1985   | 1986   | 1984    | 1985  | 1986   |
| \$ Million         |         |        |        |         |       |        |
| Algeria            | 520     | 430    | 447    | 3,638   | 2,333 | 1,831  |
| Egypt              | 2,700   | 2,317  | 1975   | 169     | 79    | 112    |
| Libya              | 200     | 310    | 46     | 9       | 44    | 1      |
| Morocco            | 524     | 273    | 426    | 34      | 39    | 43     |
| Tunisia            | 433     | 254    | 154    | 30      | 13    | 11     |
| Total North Africa | 4,377   | 3,584  | 3,048  | 3,880   | 2,508 | 1,998  |
| Bahrain            | 142     | 106    | 194    | 54      | 84    | 77     |
| Cyprus             | 73      | 45     | 53     | 28      | 14    | 10     |
| Iran               | 162     | 74     | 34     | 700     | 725   | 569    |
| Iraq               | 663     | 426    | 527    | 124     | 474   | 440    |
| Israel             | 2,145   | 2,509  | 2,133  | 1,750   | 2,123 | 2,418  |
| Jordan             | 298     | 377    | 330    | 4       | 14    | 10     |
| Kuwait             | 602     | 542    | 649    | 260     | 184   | 267    |
| Lebanon            | 285     | 139    | 105    | 7       | 19    | 30     |
| Oman               | 163     | 159    | 156    | 160     | 46    | 38     |
| PDR Yemen          | 62      | 9      | 17     | 16      | 1     | 0      |
| Qatar              | 81      | 61     | 60     | 48      | 15    | 64     |
| Saudi Arabia       | 5,445   | 4,359  | 3,383  | 3,741   | 1,907 | 3,612  |
| Syria              | 104     | 106    | 59     | 2       | 19    | 8      |
| Turkey             | 1,245   | 1,289  | 1,156  | 433     | 602   | 633    |
| UAE                | 684     | 592    | 487    | 1,187   | 671   | 356    |
| YAR                | 69      | 42     | 84     | 8       | 1     | 1      |
| Total Middle East  | 12,223  | 10,835 | 9,427  | 8,522   | 6,899 | 8,533  |
| Grand Total        | 16,600  | 14,419 | 12,475 | 12,402  | 9,408 | 10,531 |

SOURCE: Bureau of the Census.

Middle East and North Africa: total agricultural trade with the region by the EC and the United States, 1984-1986

| Country      | Total agricultural imports |        |        | EC agricultural exports |       |       | U.S. agricultural exports |       |       | EC agricultural exports |      |      | U.S. agricultural exports |      |      |
|--------------|----------------------------|--------|--------|-------------------------|-------|-------|---------------------------|-------|-------|-------------------------|------|------|---------------------------|------|------|
|              | 1984                       | 1985   | 1986   | 1984                    | 1985  | 1986  | 1984                      | 1985  | 1986  | 1984                    | 1985 | 1986 | 1984                      | 1985 | 1986 |
|              | \$ Million                 |        |        |                         |       |       | Percentage share of total |       |       |                         |      |      |                           |      |      |
| Algeria      | 2,419                      | 2,519  | 2,300  | 854                     | 841   | 850   | 199                       | 227   | 287   | 35.3                    | 33.4 | 37.0 | 8.2                       | 9.0  | 12   |
| Egypt        | 4,084                      | 4,072  | 3,976  | 981                     | 840   | 970   | 909                       | 891   | 805   | 24.0                    | 20.6 | 24.4 | 22.3                      | 21.9 | 20   |
| Libya        | 1,525                      | 1,311  | 1,200  | 419                     | 356   | 435   | 16                        | 5     | 4     | 27.5                    | 27.2 | 36.3 | 1.0                       | 0.4  | 0    |
| Morocco      | 1,300                      | 1,230  | 1,240  | 133                     | 297   | 240   | 396                       | 100   | 171   | 10.2                    | 24.1 | 19.4 | 30.5                      | 8.1  | 13   |
| Tunisia      | 596                        | 520    | 610    | 175                     | 152   | 180   | 154                       | 31    | 73    | 29.4                    | 29.2 | 29.5 | 25.8                      | 6.0  | 12   |
| North Africa | 9,924                      | 9,652  | 9,326  | 2,562                   | 2,486 | 2,675 | 1,674                     | 1,254 | 1,340 | 25.8                    | 25.8 | 28.7 | 16.9                      | 13.0 | 14   |
| Bahrain      | 224                        | 208    | 228    | 66                      | 61    | 65    | 8                         | 7     | 6     | 29.5                    | 29.3 | 28.5 | 3.6                       | 3.4  | 2    |
| Cyprus       | 195                        | 217    | 230    | 109                     | 123   | 125   | 30                        | 21    | 16    | 55.9                    | 56.7 | 54.3 | 15.4                      | 9.7  | 7    |
| Iran         | 3,570                      | 3,280  | 2,480  | 488                     | 337   | 350   | 2                         | 0     | 0     | 13.7                    | 10.3 | 14.1 | 0.1                       | 0.0  | 0    |
| Iraq         | 3,085                      | 2,888  | 2,712  | 375                     | 320   | 345   | 535                       | 326   | 354   | 12.2                    | 11.1 | 12.7 | 17.3                      | 11.3 | 13   |
| Israel       | 981                        | 920    | 900    | 153                     | 129   | 135   | 334                       | 277   | 255   | 15.6                    | 14.0 | 15.0 | 34.0                      | 30.1 | 28   |
| Jordan       | 700                        | 685    | 550    | 152                     | 120   | 115   | 98                        | 48    | 45    | 21.7                    | 17.5 | 20.9 | 14.0                      | 7.0  | 8    |
| Kuwait       | 1,440                      | 1,285  | 1,095  | 215                     | 191   | 185   | 52                        | 41    | 36    | 14.9                    | 14.9 | 16.9 | 3.6                       | 3.2  | 3    |
| Lebanon      | 601                        | 560    | 530    | 213                     | 145   | 115   | 29                        | 18    | 29    | 35.4                    | 25.9 | 21.7 | 4.8                       | 3.2  | 5    |
| Oman         | 435                        | 485    | 486    | 85                      | 87    | 92    | 8                         | 8     | 6     | 19.5                    | 17.9 | 18.9 | 1.8                       | 1.6  | 1    |
| PDR Yemen    | 240                        | 280    | 310    | 81                      | 68    | 70    | 0                         | 0     | 0     | 33.8                    | 24.3 | 22.6 | 0.0                       | 0.0  | 0    |
| Qatar        | 227                        | 218    | 225    | 52                      | 55    | 58    | 8                         | 4     | 3     | 22.9                    | 25.2 | 25.8 | 3.5                       | 1.8  | 1    |
| Saudi Arabia | 5,357                      | 4,748  | 4,644  | 1,379                   | 988   | 1,240 | 482                       | 351   | 391*  | 25.7                    | 20.8 | 26.7 | 9.0                       | 7.4  | 0    |
| Syria        | 905                        | 942    | 830    | 193                     | 191   | 190   | 38                        | 45    | 10    | 21.3                    | 20.3 | 22.9 | 4.2                       | 4.8  | 1    |
| Turkey       | 700                        | 670    | 650    | 122                     | 150   | 165   | 286                       | 63    | 121   | 17.4                    | 22.4 | 25.4 | 40.9                      | 9.4  | 18   |
| UAE          | 1,380                      | 1,240  | 1,187  | 252                     | 239   | 250   | 40                        | 44    | 31    | 18.3                    | 19.3 | 21.1 | 2.9                       | 3.5  | 2    |
| YAR          | 809                        | 725    | 595    | 217                     | 210   | 205   | 36                        | 15    | 30    | 26.8                    | 29.0 | 34.5 | 4.4                       | 2.1  | 5    |
| Middle East  | 20,849                     | 19,351 | 17,652 | 4,152                   | 3,414 | 3,705 | 1,986                     | 1,268 | 1,333 | 19.9                    | 17.6 | 21.0 | 9.5                       | 6.6  | 7    |
| Grand total  | 30,773                     | 29,003 | 26,978 | 6,714                   | 5,900 | 6,380 | 3,660                     | 2,522 | 2,674 | 21.8                    | 20.3 | 23.6 | 11.9                      | 8.7  | 9    |

\* This figure excludes cigarettes, nonalcoholic beverages, transport trade, and high-valued processed foods that Saudi Arabia includes in its agricultural imports.

SOURCES: Bureau of the Census, 1985 FAO Trade Yearbook, UN Trade Runs for EC countries, and ERS estimates.

Middle East and North Africa: imports of grains, annual 1984-1986

| Country            | Wheat and Flour* |        |        | 1984  | Rice  |       | 1984   | Feed grains |        | 1984   | Total  | 1986   |
|--------------------|------------------|--------|--------|-------|-------|-------|--------|-------------|--------|--------|--------|--------|
|                    | 1984             | 1985   | 1986   |       | 1985  | 1986  |        | 1985        | 1986   |        | 1985   |        |
| 1,000 Tons         |                  |        |        |       |       |       |        |             |        |        |        |        |
| Algeria            | 3,000            | 3,100  | 3,496  | 30    | 33    | 25    | 970    | 950         | 1150   | 4,000  | 4,083  | 4,475  |
| Egypt              | 7,040            | 7,082  | 6,609  | 2     | 5     | 44    | 1,787  | 1,900       | 1985   | 8,829  | 8,987  | 9,524  |
| Libya              | 640              | 650    | 600    | 53    | 56    | 60    | 340    | 370         | 420    | 1,033  | 1,076  | 1,080  |
| Morocco            | 2,643            | 2,400  | 1,500  | 12    | 10    | 16    | 300    | 250         | 180    | 2,955  | 2,660  | 1,696  |
| Tunisia            | 1,035            | 800    | 1,200  | 4     | 4     | 4     | 250    | 220         | 370    | 1,289  | 1,024  | 1,574  |
| Total North Africa | 14,358           | 14,032 | 13,476 | 101   | 108   | 149   | 3,647  | 3,690       | 4,105  | 18,106 | 17,830 | 18,349 |
| Bahrain            | 43               | 45     | 50     | 19    | 22    | 25    | 20     | 25          | 30     | 82     | 92     | 105    |
| Cyprus             | 88               | 81     | 85     | 2     | 3     | 5     | 370    | 400         | 420    | 460    | 484    | 510    |
| Iran               | 3,743            | 2,740  | 2,540  | 710   | 570   | 700   | 1,300  | 1,100       | 1,500  | 5,753  | 4,410  | 4,740  |
| Iraq               | 3,342            | 2,700  | 2,825  | 525   | 550   | 520   | 960    | 770         | 500    | 4,827  | 4,020  | 3,845  |
| Israel             | 555              | 638    | 570    | 49    | 60    | 60    | 1,171  | 1,012       | 1,000  | 1,775  | 1,710  | 1,630  |
| Jordan             | 467              | 483    | 450    | 40    | 50    | 75    | 290    | 300         | 320    | 797    | 833    | 845    |
| Kuwait             | 301              | 330    | 325    | 118   | 114   | 110   | 220    | 210         | 230    | 639    | 654    | 665    |
| Lebanon            | 359              | 360    | 390    | 25    | 27    | 35    | 180    | 200         | 140    | 564    | 587    | 565    |
| Oman               | 110              | 125    | 135    | 135   | 140   | 147   | 30     | 31          | 35     | 275    | 296    | 317    |
| PDR Yemen          | 282              | 386    | 315    | 55    | 70    | 75    | 24     | 24          | 25     | 361    | 480    | 415    |
| Qatar              | 36               | 31     | 35     | 23    | 25    | 27    | 36     | 40          | 42     | 95     | 96     | 104    |
| Saudi Arabia       | 481              | 115    | 116    | 515   | 429   | 507   | 6,672  | 6,340       | 7,350  | 7,668  | 5,723  | 7,973  |
| Syria              | 1,216            | 1,200  | 930    | 110   | 170   | 130   | 285    | 350         | 200    | 1,611  | 1,720  | 1,260  |
| Turkey             | 978              | 1,300  | 700    | 55    | 91    | 75    | 849    | 175         | 200    | 1,882  | 1,566  | 570    |
| UAE                | 175              | 205    | 215    | 220   | 210   | 205   | 100    | 120         | 145    | 495    | 535    | 565    |
| YAR                | 666              | 630    | 640    | 140   | 135   | 152   | 35     | 38          | 45     | 841    | 803    | 837    |
| Total Middle East  | 12,842           | 11,369 | 9,916  | 2,741 | 2,666 | 2,848 | 12,542 | 11,135      | 12,182 | 28,125 | 24,009 | 24,946 |
| Grand total        | 27,200           | 25,401 | 24,457 | 2,842 | 2,774 | 2,997 | 16,189 | 14,825      | 16,287 | 46,231 | 41,839 | 43,295 |

\*Flour converted to wheat equivalent at 1.39.

SOURCES: Country trade data and ERS matrix tables.

U.S. agricultural exports to the Middle East and North Africa, by value for selected items, 1985 and 1986

| Country            | Total agriculture |           | Wheat and flour |           | Rice    |         | Corn    |         | Oilseeds and products |         | Barley |         |
|--------------------|-------------------|-----------|-----------------|-----------|---------|---------|---------|---------|-----------------------|---------|--------|---------|
|                    | 1985              | 1986      | 1985            | 1986      | 1985    | 1986    | 1985    | 1986    | 1985                  | 1986    | 1985   | 1986    |
| \$ 1000            |                   |           |                 |           |         |         |         |         |                       |         |        |         |
| Algeria            | 227,108           | 287,224   | 122,053         | 199,880   | 0       | 0       | 59,760  | 35,120  | 109                   | 28,856  | 0      | 0       |
| Egypt              | 891,425           | 804,957   | 317,753         | 335,431   | 399     | 0       | 175,944 | 158,542 | 63,240                | 85,724  | 0      | 0       |
| Libya              | 5,226             | 4,404     | 0               | 0         | 253     | 0       | 4,273   | 1,192   | 0                     | 2,635   | 0      | 0       |
| Morocco            | 99,831            | 170,619   | 60,330          | 143,529   | 4,992   | 1,741   | 14,280  | 6,488   | 6,238                 | 5,649   | 0      | 0       |
| Tunisia            | 31,093            | 72,837    | 8,822           | 53,714    | 0       | 0       | 19,321  | 14,577  | 4                     | 0       | 0      | 0       |
| Total North Africa | 1,254,683         | 1,340,041 | 508,958         | 732,554   | 5,644   | 1,741   | 273,578 | 215,919 | 69,591                | 122,864 | 0      | 0       |
| Bahrain            | 6,738             | 6,127     | 12              | 11        | 129     | 103     | 0       | 588     | 577                   | 0       | 0      | 0       |
| Cyprus             | 20,516            | 16,246    | 4,952           | 5,153     | 158     | 200     | 6,765   | 891     | 1,401                 | 2,718   | 0      | 3,518   |
| Iran               | 394               | 19        | 0               | 0         | 0       | 0       | 0       | 0       | 0                     | 0       | 0      | 0       |
| Iraq               | 326,101           | 354,046   | 78,182          | 102,835   | 149,122 | 102,141 | 29,061  | 33,666  | 21,920                | 45,006  | 12,119 | 0       |
| Israel             | 277,381           | 254,747   | 63,338          | 64,297    | 239     | 2,635   | 31,798  | 30,538  | 94,190                | 83,106  | 0      | 2,998   |
| Jordan             | 48,380            | 45,366    | 26,174          | 6,694     | 697     | 10,427  | 7,761   | 7,422   | 4,866                 | 6,950   | 0      | 0       |
| Kuwait             | 41,487            | 36,101    | 8               | 18        | 2,733   | 2,217   | 5,110   | 8,400   | 7,184                 | 5,647   | 3,167  | 0       |
| Lebanon            | 17,593            | 29,328    | 949             | 4,390     | 394     | 230     | 1,986   | 4,270   | 5,977                 | 10,571  | 0      | 0       |
| Oman               | 8,487             | 5,855     | 0               | 0         | 108     | 248     | 0       | 0       | 827                   | 434     | 0      | 0       |
| PDR Yemen          | 281               | 25        | 0               | 0         | 0       | 0       | 0       | 0       | 240                   | 0       | 0      | 0       |
| Qatar              | 3,736             | 3,189     | 48              | 19        | 121     | 152     | 0       | 0       | 548                   | 387     | 0      | 0       |
| Saudi Arabia       | 350,809           | 391,334   | 15,665          | 27,516    | 101,094 | 78,282  | 48,106  | 17,710  | 52,474                | 58,319  | 3,818  | 99,919  |
| Syria              | 45,470            | 9,549     | 9,162           | 0         | 0       | 1,954   | 19,095  | 5,166   | 14,154                | 185     | 0      | 0       |
| Turkey             | 62,776            | 121,120   | 15,724          | 63,180    | 2       | 11,590  | 3,046   | 12      | 12,689                | 8,908   | 6,727  | 0       |
| UAE                | 43,646            | 31,062    | 161             | 135       | 2,711   | 2,778   | 3,096   | 492     | 4,284                 | 3,613   | 472    | 0       |
| YAR                | 14,770            | 29,907    | 4,000           | 23,834    | 7,779   | 4,973   | 1,843   | 0       | 76                    | 21      | 0      | 0       |
| Total Middle East  | 1,268,565         | 1,334,021 | 218,375         | 298,082   | 265,287 | 217,930 | 157,667 | 108,567 | 221,418               | 226,442 | 26,304 | 106,435 |
| Grand Total        | 2,523,248         | 2,674,062 | 727,333         | 1,030,636 | 270,931 | 219,671 | 431,245 | 324,486 | 291,009               | 349,306 | 26,304 | 106,435 |

SDURCE: Bureau of the Census.

U.S. agricultural exports to the Middle East and North Africa, by volume for selected items, 1985 and 1986

| Country            | Wheat and flour |           | Rice    |         | Corn      |           | Oilseeds and products |           | Barley  |           |
|--------------------|-----------------|-----------|---------|---------|-----------|-----------|-----------------------|-----------|---------|-----------|
|                    | 1985            | 1986      | 1985    | 1986    | 1985      | 1986      | 1985                  | 1986      | 1985    | 1986      |
| Tons               |                 |           |         |         |           |           |                       |           |         |           |
| Algeria            | 835,538         | 1,679,582 | 0       | 0       | 526,647   | 430,388   | 101                   | 122,692   | 0       | 0         |
| Egypt              | 2,173,474       | 2,765,393 | 1,697   | 0       | 1,524,010 | 1,696,472 | 179,170               | 414,155   | 0       | 0         |
| Libya              | 0               | 0         | 868     | 0       | 36,212    | 10,500    | 0                     | 12,710    | 0       | 0         |
| Morocco            | 451,487         | 1,314,179 | 20,548  | 11,212  | 126,010   | 65,200    | 21,525                | 20,631    | 0       | 0         |
| Tunisia            | 70,359          | 496,609   | 0       | 0       | 171,778   | 164,803   | 15                    | 0         | 0       | 0         |
| Total North Africa | 3,530,858       | 6,255,763 | 23,113  | 11,212  | 2,384,657 | 2,367,363 | 200,811               | 570,188   | 0       | 0         |
| Bahrain            | 54              | 30        | 223     | 211     | 0         | 0         | 374                   | 324       | 374     | 324       |
| Cyprus             | 30,590          | 39,138    | 192     | 215     | 59,495    | 12,229    | 8,373                 | 13,320    | 0       | 43,364    |
| Iran               | 0               | 0         | 0       | 0       | 0         | 0         | 0                     | 0         | 0       | 0         |
| Iraq               | 531,864         | 815,693   | 406,609 | 373,174 | 240,045   | 322,935   | 109,353               | 174,099   | 99,848  | 0         |
| Israel             | 450,521         | 616,323   | 678     | 15,123  | 265,207   | 318,627   | 430,521               | 400,499   | 0       | 35,887    |
| Jordan             | 188,474         | 72,867    | 1,220   | 54,632  | 67,494    | 90,880    | 24,369                | 31,163    | 0       | 0         |
| Kuwait             | 32              | 46        | 6,363   | 6,495   | 44,835    | 95,698    | 20,485                | 17,105    | 26,249  | 0         |
| Lebanon            | 4,951           | 43,004    | 651     | 420     | 17,821    | 49,829    | 27,364                | 45,887    | 0       | 0         |
| Oman               | 0               | 0         | 140     | 583     | 0         | 0         | 1,056                 | 598       | 1,056   | 598       |
| PDR Yemen          | 0               | 0         | 0       | 0       | 0         | 0         | 0                     | 0         | 0       | 0         |
| Qatar              | 83              | 51        | 212     | 299     | 0         | 0         | 276                   | 267       | 0       | 0         |
| Saudi Arabia       | 49,988          | 108,351   | 194,504 | 192,869 | 362,264   | 194,684   | 128,556               | 174,325   | 42,283  | 1,235,705 |
| Syria              | 56,644          | 0         | 0       | 13,039  | 167,058   | 70,681    | 84,589                | 148       | 0       | 0         |
| Turkey             | 109,428         | 550,304   | 2       | 50,797  | 24,732    | 79        | 29,455                | 18,223    | 66,850  | 0         |
| UAE                | 361             | 312       | 5,655   | 7,577   | 27,592    | 4,718     | 4,013                 | 4,172     | 3,367   | 0         |
| YAR                | 29,771          | 186,992   | 21,189  | 23,908  | 10,570    | 0         | 40                    | 13        | 0       | 0         |
| Total Middle East  | 1,452,761       | 2,433,111 | 637,638 | 739,343 | 1,287,113 | 1,160,360 | 868,824               | 880,143   | 240,027 | 1,315,878 |
| Grand Total        | 4,983,619       | 8,688,874 | 660,751 | 750,555 | 3,671,770 | 3,527,723 | 1,069,635             | 1,450,331 | 240,027 | 1,315,878 |

SOURCE: Bureau of the Census.

Total exports and imports by Middle East and North African OPEC countries, 1977-1986

| Country              | 1977           | 1978           | 1979           | 1980           | 1981           | 1982           | 1983           | 1984           | 1985           | 1986            |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| \$ Million           |                |                |                |                |                |                |                |                |                |                 |
| <b>EXPORTS</b>       |                |                |                |                |                |                |                |                |                |                 |
| Algeria              | 6,166          | 6,315          | 9,483          | 13,660         | 14,116         | 13,508         | 12,583         | 12,795         | 13,333         | 8,300           |
| Iran                 | 24,260         | 22,200         | 19,876         | 14,278         | 12,597         | 19,430         | 20,211         | 13,220         | 12,285         | 6,450           |
| Iraq                 | 9,649          | 11,061         | 21,500         | 26,278         | 10,530         | 10,250         | 9,785          | 11,400         | 11,100         | 7,000           |
| Kuwait               | 9,801          | 10,427         | 18,242         | 19,842         | 16,299         | 10,864         | 11,540         | 12,241         | 10,652         | 7,700           |
| Libya                | 9,759          | 9,498          | 16,085         | 21,919         | 15,576         | 13,954         | 11,397         | 11,140         | 10,728         | 6,800           |
| Qatar                | 2,003          | 2,336          | 3,790          | 5,703          | 5,696          | 5,200          | 3,338          | 3,190          | 3,300          | 1,650           |
| Saudi Arabia         | 44,061         | 37,914         | 58,751         | 102,259        | 113,406        | 76,247         | 47,814         | 37,530         | 27,917         | 20,937          |
| UAE                  | 9,637          | 9,126          | 13,652         | 20,678         | 20,234         | 17,261         | 15,085         | 14,173         | 14,086         | 10,335          |
| <b>TOTAL</b>         | <b>115,336</b> | <b>108,877</b> | <b>161,379</b> | <b>224,617</b> | <b>208,454</b> | <b>166,714</b> | <b>131,753</b> | <b>115,689</b> | <b>103,401</b> | <b>69,172</b>   |
| <b>IMPORTS</b>       |                |                |                |                |                |                |                |                |                |                 |
| Algeria              | 7,125          | 8,681          | 8,403          | 10,826         | 11,269         | 10,754         | 10,393         | 10,286         | 9,061          | 8,100           |
| Iran                 | 14,645         | 13,549         | 9,738          | 12,246         | 12,499         | 14,164         | 18,327         | 15,370         | 11,635         | 11,300          |
| Iraq                 | 3,899          | 4,213          | 7,230          | 14,067         | 20,735         | 21,534         | 12,166         | 11,078         | 10,556         | 10,400          |
| Kuwait               | 4,840          | 4,595          | 5,200          | 6,529          | 6,978          | 8,282          | 7,373          | 7,009          | 6,639          | 6,500           |
| Libya                | 3,773          | 4,603          | 5,311          | 6,777          | 8,382          | 7,175          | 7,467          | 6,800          | 5,422          | 5,300           |
| Qatar                | 1,227          | 1,193          | 1,453          | 1,448          | 1,524          | 1,900          | 1,456          | 1,500          | 1,460          | 1,350           |
| Saudi Arabia         | 14,656         | 20,349         | 24,257         | 30,166         | 35,269         | 40,644         | 39,197         | 33,696         | 30,000         | 28,900          |
| UAE                  | 5,048          | 5,364          | 6,952          | 8,746          | 9,646          | 9,440          | 8,356          | 7,634          | 7,568          | 7,400           |
| <b>TOTAL</b>         | <b>55,213</b>  | <b>62,547</b>  | <b>68,544</b>  | <b>90,805</b>  | <b>106,302</b> | <b>113,893</b> | <b>104,735</b> | <b>93,373</b>  | <b>82,341</b>  | <b>79,250</b>   |
| <b>TRADE BALANCE</b> |                |                |                |                |                |                |                |                |                |                 |
| Algeria              | (959)          | (2,366)        | 1,080          | 2,834          | 2,847          | 2,754          | 2,190          | 2,509          | 4,272          | 200             |
| Iran                 | 9,615          | 8,651          | 10,138         | 2,032          | 98             | 5,266          | 1,884          | (2,150)        | 650            | (4,850)         |
| Iraq                 | 5,750          | 6,848          | 14,270         | 12,211         | (10,205)       | (11,284)       | (2,381)        | 322            | 544            | (3,400)         |
| Kuwait               | 4,961          | 5,832          | 13,042         | 13,313         | 9,321          | 2,582          | 4,167          | 5,232          | 4,013          | 1,200           |
| Libya                | 5,986          | 4,895          | 10,774         | 15,142         | 7,194          | 6,779          | 3,930          | 4,340          | 5,306          | 1,500           |
| Qatar                | 776            | 1,143          | 2,337          | 4,255          | 4,172          | 3,300          | 1,882          | 1,690          | 1,840          | 300             |
| Saudi Arabia         | 29,405         | 17,565         | 34,494         | 72,093         | 78,137         | 35,603         | 8,617          | 3,834          | (2,083)        | (7,963)         |
| UAE                  | 4,589          | 3,762          | 6,700          | 11,932         | 10,588         | 7,821          | 6,729          | 6,539          | 6,518          | 2,935           |
| <b>TOTAL</b>         | <b>60,123</b>  | <b>46,330</b>  | <b>92,835</b>  | <b>133,812</b> | <b>102,152</b> | <b>52,821</b>  | <b>27,018</b>  | <b>22,316</b>  | <b>21,060</b>  | <b>(10,078)</b> |

SOURCE: International Financial Statistics, March 1987.

## Middle East and North Africa indices of agricultural and food production, 1982-1986

| Country                       | 1982 | 1983 | 1984 | 1985 | 1986                               | 1982 | 1983 | 1984 | 1985 | 1986 |
|-------------------------------|------|------|------|------|------------------------------------|------|------|------|------|------|
| Total agricultural production |      |      |      |      | Per capita agricultural production |      |      |      |      |      |
| 1976-78 = 100                 |      |      |      |      |                                    |      |      |      |      |      |
| North Africa                  |      |      |      |      |                                    |      |      |      |      |      |
| Algeria                       | 105  | 100  | 104  | 144  | 162                                | 89   | 83   | 83   | 112  | 122  |
| Egypt                         | 115  | 117  | 118  | 124  | 144                                | 99   | 97   | 96   | 97   | 98   |
| Libya                         | 125  | 127  | 137  | 141  | 144                                | 98   | 95   | 98   | 98   | 97   |
| Morocco                       | 111  | 106  | 107  | 111  | 130                                | 97   | 91   | 90   | 91   | 104  |
| Tunisia                       | 133  | 125  | 140  | 169  | 138                                | 117  | 108  | 118  | 139  | 112  |
| Total                         | 114  | 112  | 115  | 127  | 135                                | 98   | 94   | 94   | 101  | 104  |
| Middle East                   |      |      |      |      |                                    |      |      |      |      |      |
| Cyprus                        | 125  | 126  | 133  | 134  | 144                                | 119  | 119  | 124  | 123  | 131  |
| Iran                          | 96   | 95   | 94   | 104  | 113                                | 82   | 79   | 76   | 81   | 86   |
| Iraq                          | 101  | 103  | 104  | 130  | 138                                | 85   | 84   | 82   | 99   | 102  |
| Israel                        | 112  | 114  | 114  | 111  | 96                                 | 101  | 100  | 98   | 94   | 79   |
| Jordan                        | 153  | 109  | 137  | 103  | 142                                | 127  | 87   | 106  | 77   | 103  |
| Lebanon                       | 126  | 113  | 112  | 108  | 123                                | 130  | 116  | 116  | 111  | 123  |
| Saudi Arabia                  | 168  | 226  | 295  | 362  | 419                                | 137  | 178  | 225  | 267  | 300  |
| Syria                         | 121  | 115  | 102  | 114  | 125                                | 102  | 93   | 80   | 85   | 90   |
| Turkey                        | 114  | 114  | 115  | 113  | 121                                | 102  | 99   | 98   | 94   | 99   |
| Total                         | 111  | 113  | 115  | 121  | 130                                | 97   | 96   | 95   | 97   | 101  |
| Total food production         |      |      |      |      | Per capita food production         |      |      |      |      |      |
| North Africa                  |      |      |      |      |                                    |      |      |      |      |      |
| Algeria                       | 105  | 100  | 104  | 145  | 163                                | 89   | 83   | 83   | 112  | 122  |
| Egypt                         | 116  | 119  | 122  | 126  | 133                                | 99   | 99   | 98   | 99   | 101  |
| Libya                         | 124  | 127  | 135  | 141  | 144                                | 98   | 95   | 97   | 98   | 97   |
| Morocco                       | 111  | 106  | 107  | 112  | 131                                | 98   | 91   | 90   | 92   | 105  |
| Tunisia                       | 133  | 125  | 141  | 169  | 138                                | 117  | 108  | 119  | 140  | 112  |
| Total                         | 114  | 113  | 117  | 129  | 138                                | 98   | 95   | 95   | 102  | 107  |
| Middle East                   |      |      |      |      |                                    |      |      |      |      |      |
| Cyprus                        | 125  | 127  | 134  | 134  | 144                                | 119  | 119  | 124  | 124  | 131  |
| Iran                          | 97   | 96   | 95   | 106  | 115                                | 83   | 80   | 76   | 83   | 87   |
| Iraq                          | 102  | 103  | 105  | 131  | 139                                | 86   | 84   | 82   | 100  | 103  |
| Israel                        | 109  | 110  | 111  | 106  | 95                                 | 98   | 97   | 96   | 90   | 79   |
| Jordan                        | 153  | 109  | 137  | 103  | 142                                | 127  | 87   | 106  | 77   | 103  |
| Lebanon                       | 134  | 119  | 121  | 116  | 131                                | 138  | 123  | 125  | 119  | 131  |
| Saudi Arabia                  | 168  | 226  | 295  | 362  | 419                                | 137  | 178  | 225  | 267  | 300  |
| Syria                         | 128  | 113  | 101  | 113  | 133                                | 107  | 92   | 79   | 84   | 96   |
| Turkey                        | 117  | 116  | 118  | 117  | 127                                | 105  | 101  | 100  | 98   | 103  |
| Total                         | 114  | 114  | 117  | 124  | 135                                | 99   | 97   | 96   | 99   | 105  |

| Country and year 1/              | Wheat  | Barley | Corn  | Rice, Paddy | Pulses 2/ | Grapes | Citrus fruit | Dates | Cotton | Cotton Seed | Tobacco | Sugar, Raw | Milk   | Wool | Meat  |
|----------------------------------|--------|--------|-------|-------------|-----------|--------|--------------|-------|--------|-------------|---------|------------|--------|------|-------|
| 1000 tons                        |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| NORTH AFRICA                     |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| Algeria                          |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 1,180  | 415    | 2     | 2           | 63        | 329    | 486          | 150   | --     | --          | 2       | --         | 583    | 17   | 135   |
| 1984                             | 1,200  | 588    | 1     | 1           | 51        | 350    | 342          | 207   | --     | --          | 5       | --         | 580    | 18   | 148   |
| 1985                             | 1,646  | 1,295  | 1     | 1           | 41        | 365    | 295          | 220   | --     | --          | 3       | --         | 600    | 18   | 232   |
| 1986                             | 1,445  | 1,100  | 1     | 1           | 58        | 365    | 335          | 210   | --     | --          | 3       | --         | 700    | 18   | 333   |
| Egypt                            |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 1,863  | 122    | 2,963 | 2,308       | 278       | 267    | 889          | 416   | 411    | 701         | --      | 657        | 1,776  | 4    | 427   |
| 1984                             | 1,815  | 144    | 3,698 | 2,330       | 315       | 315    | 1,403        | 450   | 399    | 680         | --      | 703        | 2,235  | 5    | 558   |
| 1985                             | 1,874  | 145    | 3,699 | 2,312       | 315       | 318    | 1,394        | 445   | 435    | 664         | --      | 803        | 2,341  | 5    | 588   |
| 1986                             | 1,929  | 152    | 3,900 | 2,537       | 296       | 322    | 1,400        | 455   | 407    | 698         | --      | 815        | 2,530  | 5    | 611   |
| Libya                            |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 97     | 171    | --    | --          | --        | 12     | 27           | 72    | --     | --          | 1       | --         | 96     | --   | 37    |
| 1984                             | 150    | 100    | --    | --          | --        | 23     | 46           | 98    | --     | --          | 4       | --         | 120    | --   | 65    |
| 1985                             | 148    | 105    | --    | --          | --        | 22     | 47           | 92    | --     | --          | 2       | --         | 125    | --   | 69    |
| 1986                             | 145    | 100    | --    | --          | --        | 21     | 44           | 97    | --     | --          | 2       | --         | 127    | --   | 73    |
| Morocco                          |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 1,784  | 2,177  | 356   | 25          | 282       | 334    | 942          | 92    | 5      | 10          | 6       | 319        | 618    | 24   | 198   |
| 1984                             | 1,989  | 1,405  | 264   | 3           | 204       | 350    | 1,010        | 80    | 7      | 16          | 3       | 422        | 675    | 15   | 317   |
| 1985                             | 1,835  | 2,025  | 162   | 3           | 333       | 360    | 943          | 77    | 4      | 15          | 3       | 378        | 680    | 16   | 341   |
| 1986                             | 2,995  | 2,820  | 180   | 3           | 356       | 345    | 983          | 81    | 6      | 17          | 6       | 368        | 710    | 16   | 350   |
| Tunisia                          |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 748    | 201    | --    | --          | 64        | 57     | 158          | 40    | --     | --          | 4       | 10         | 234    | 7    | 98    |
| 1984                             | 711    | 312    | --    | --          | 53        | 82     | 191          | 46    | --     | --          | 3       | 14         | 290    | 10   | 174   |
| 1985                             | 1,380  | 686    | --    | --          | 73        | 68     | 170          | 60    | --     | --          | 4       | 16         | 315    | 11   | 188   |
| 1986                             | 474    | 132    | --    | --          | 59        | 61     | 212          | 69    | --     | --          | 4       | 16         | 352    | 11   | 194   |
| Total North Africa               |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 5,673  | 3,086  | 3,320 | 2,334       | 687       | 999    | 2,502        | 771   | 416    | 711         | 13      | 986        | 3,309  | 52   | 895   |
| 1984                             | 5,865  | 2,549  | 3,963 | 2,334       | 623       | 1,120  | 2,992        | 881   | 406    | 696         | 15      | 1,139      | 3,900  | 48   | 1,262 |
| 1985                             | 6,883  | 4,256  | 3,862 | 2,316       | 762       | 1,133  | 2,849        | 894   | 439    | 679         | 12      | 1,197      | 4,061  | 50   | 1,418 |
| 1986                             | 6,988  | 4,304  | 4,081 | 2,541       | 769       | 1,114  | 2,974        | 912   | 413    | 715         | 15      | 1,199      | 4,419  | 50   | 1,561 |
| MIDDLE EAST                      |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| Cyprus                           |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 44     | 85     | --    | --          | 8         | 157    | 194          | --    | --     | --          | 1       | --         | --     | --   | --    |
| 1984                             | 20     | 100    | --    | --          | 7         | 210    | 297          | --    | --     | --          | 1       | --         | --     | --   | --    |
| 1985                             | 19     | 100    | --    | --          | 7         | 205    | 314          | --    | --     | --          | 1       | --         | --     | --   | --    |
| 1986                             | 20     | 100    | --    | --          | 8         | 210    | 323          | --    | --     | --          | 1       | --         | --     | --   | --    |
| Iran                             |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 5,267  | 1,083  | 52    | 1,205       | 162       | 499    | 300          | 297   | 162    | 306         | 18      | 650        | 2,300  | 16   | 733   |
| 1984                             | 4,500  | 950    | 50    | 1,230       | 130       | 530    | 325          | 330   | 106    | 192         | 30      | 410        | 2,570  | 15   | 619   |
| 1985                             | 5,300  | 1,544  | 60    | 1,400       | 181       | 563    | 315          | 385   | 88     | 177         | 24      | 412        | 2,654  | 15   | 663   |
| 1986                             | 5,950  | 1,800  | 62    | 1,364       | 220       | 585    | 340          | 400   | 91     | 195         | 32      | 420        | 2,900  | 16   | 715   |
| Iraq                             |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 973    | 551    | --    | 178         | 93        | 376    | 108          | 446   | 37     | 78          | 10      | --         | 1,613  | 13   | 230   |
| 1984                             | 471    | 482    | --    | 109         | 126       | 425    | 153          | 115   | 14     | 29          | 14      | --         | 1,480  | 11   | 313   |
| 1985                             | 1,406  | 1,331  | --    | 149         | 134       | 440    | 158          | 330   | 14     | 29          | 13      | --         | 1,530  | 11   | 346   |
| 1986                             | 1,100  | 1,300  | --    | 145         | 154       | 470    | 163          | 396   | 15     | 30          | 15      | --         | 1,645  | 11   | 382   |
| Israel                           |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 198    | 14     | --    | --          | --        | 75     | 1,463        | --    | 66     | 109         | --      | 36         | 715    | --   | 185   |
| 1984                             | 120    | 4      | --    | --          | --        | 60     | 1,522        | --    | 88     | 187         | --      | 20         | 839    | --   | 223   |
| 1985                             | 128    | 5      | --    | --          | --        | 65     | 1,452        | --    | 97     | 185         | --      | 17         | 786    | --   | 212   |
| 1986                             | 120    | 3      | --    | --          | --        | 65     | 1,146        | --    | 65     | 160         | --      | 15         | 805    | --   | 190   |
| Jordan                           |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 61     | 18     | --    | --          | 43        | 60     | 105          | --    | --     | --          | --      | --         | --     | --   | --    |
| 1984                             | 55     | 10     | --    | --          | 34        | 67     | 125          | --    | --     | --          | --      | --         | --     | --   | --    |
| 1985                             | 60     | 20     | --    | --          | 30        | 70     | 120          | --    | --     | --          | --      | --         | --     | --   | --    |
| 1986                             | 35     | 16     | --    | --          | 39        | 73     | 127          | --    | --     | --          | --      | --         | --     | --   | --    |
| Lebanon                          |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 45     | 10     | --    | --          | 11        | 85     | 312          | --    | --     | --          | 6       | 13         | --     | --   | --    |
| 1984                             | 13     | 5      | --    | --          | 12        | 160    | 283          | --    | --     | --          | 3       | 10         | --     | --   | --    |
| 1985                             | 15     | 8      | --    | --          | 14        | 165    | 300          | --    | --     | --          | 3       | 12         | --     | --   | --    |
| 1986                             | 14     | 6      | --    | --          | 16        | 170    | 308          | --    | --     | --          | 4       | 12         | --     | --   | --    |
| Saudi Arabia                     |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 113    | 14     | 16    | 3           | --        | 50     | 16           | 350   | --     | --          | --      | --         | 279    | --   | 84    |
| 1984                             | 1,407  | 7      | 5     | 1           | --        | 79     | 37           | 450   | --     | --          | --      | --         | 335    | --   | 300   |
| 1985                             | 2,047  | 10     | 6     | 1           | --        | 92     | 42           | 470   | --     | --          | --      | --         | 353    | --   | 355   |
| 1986                             | 2,285  | 12     | 6     | 1           | --        | 105    | 47           | 507   | --     | --          | --      | --         | 420    | --   | 424   |
| Syria                            |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 1,553  | 708    | --    | --          | 239       | 339    | --           | --    | 150    | 251         | 16      | 30         | --     | 15   | --    |
| 1984                             | 1,068  | 303    | --    | --          | 125       | 400    | --           | --    | 165    | 280         | 13      | 127        | --     | 19   | --    |
| 1985                             | 1,714  | 740    | --    | --          | 150       | 486    | --           | --    | 182    | 306         | 14      | 63         | --     | 20   | --    |
| 1986                             | 1,850  | 1,200  | --    | --          | 140       | 500    | --           | --    | 137    | 233         | 14      | 38         | --     | 20   | --    |
| Turkey                           |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 13,267 | 4,800  | 1,292 | 263         | 755       | 2,889  | 995          | --    | 509    | 810         | 283     | 1,089      | 5,064  | 55   | 593   |
| 1984                             | 13,300 | 6,000  | 1,500 | 271         | 1,215     | 2,980  | 1,120        | --    | 580    | 927         | 194     | 1,655      | 4,700  | 60   | 807   |
| 1985                             | 12,700 | 5,800  | 1,800 | 271         | 1,412     | 2,820  | 970          | --    | 518    | 829         | 170     | 1,398      | 4,600  | 55   | 836   |
| 1986                             | 14,000 | 6,300  | 2,300 | 300         | 1,640     | 3,000  | 1,060        | --    | 470    | 747         | 177     | 1,570      | 4,500  | 50   | 864   |
| Total Middle East                |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 21,520 | 7,284  | 1,359 | 1,649       | 1,310     | 4,531  | 3,492        | 1,093 | 923    | 1,554       | 334     | 1,818      | 9,970  | 99   | 1,825 |
| 1984                             | 20,954 | 7,861  | 1,555 | 1,611       | 1,649     | 4,911  | 3,862        | 895   | 953    | 1,615       | 255     | 2,222      | 9,924  | 105  | 2,262 |
| 1985                             | 23,389 | 9,558  | 1,866 | 1,821       | 1,928     | 4,906  | 3,671        | 1,185 | 899    | 1,526       | 225     | 1,902      | 9,923  | 101  | 2,412 |
| 1986                             | 25,374 | 10,737 | 2,368 | 1,810       | 2,217     | 5,178  | 3,514        | 1,303 | 778    | 1,365       | 243     | 2,055      | 10,270 | 97   | 2,575 |
| Total North Africa & Middle East |        |        |       |             |           |        |              |       |        |             |         |            |        |      |       |
| 1976-78 Avg.                     | 27,192 | 10,370 | 4,679 | 3,983       | 1,997     | 5,531  | 5,994        | 1,864 | 1,338  | 2,265       | 347     | 2,804      | 13,279 | 151  | 2,719 |
| 1984                             | 26,819 | 10,410 | 5,518 | 3,945       | 2,272     | 6,031  | 6,854        | 1,776 | 1,359  | 2,311       | 270     | 3,361      | 13,824 | 153  | 3,524 |
| 1985                             | 30,272 | 13,814 | 5,728 | 4,137       | 2,690     | 6,039  | 6,520        | 2,079 | 1,338  | 2,205       | 237     | 3,099      | 13,984 | 151  | 3,830 |
| 1986                             | 32,362 | 15,041 | 6,449 | 4,351       | 2,986     | 6,292  | 6,488        | 2,215 | 1,191  | 2,080       | 258     | 3,254      | 14,689 | 147  | 4,136 |

1/ Data for 1986 are preliminary.

2/ Pulses may include dry beans, broad beans, lentils, chickpeas, cowpeas, dry peas, and vetch.

-- = None, negligible, or not identified in ERS data base.

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